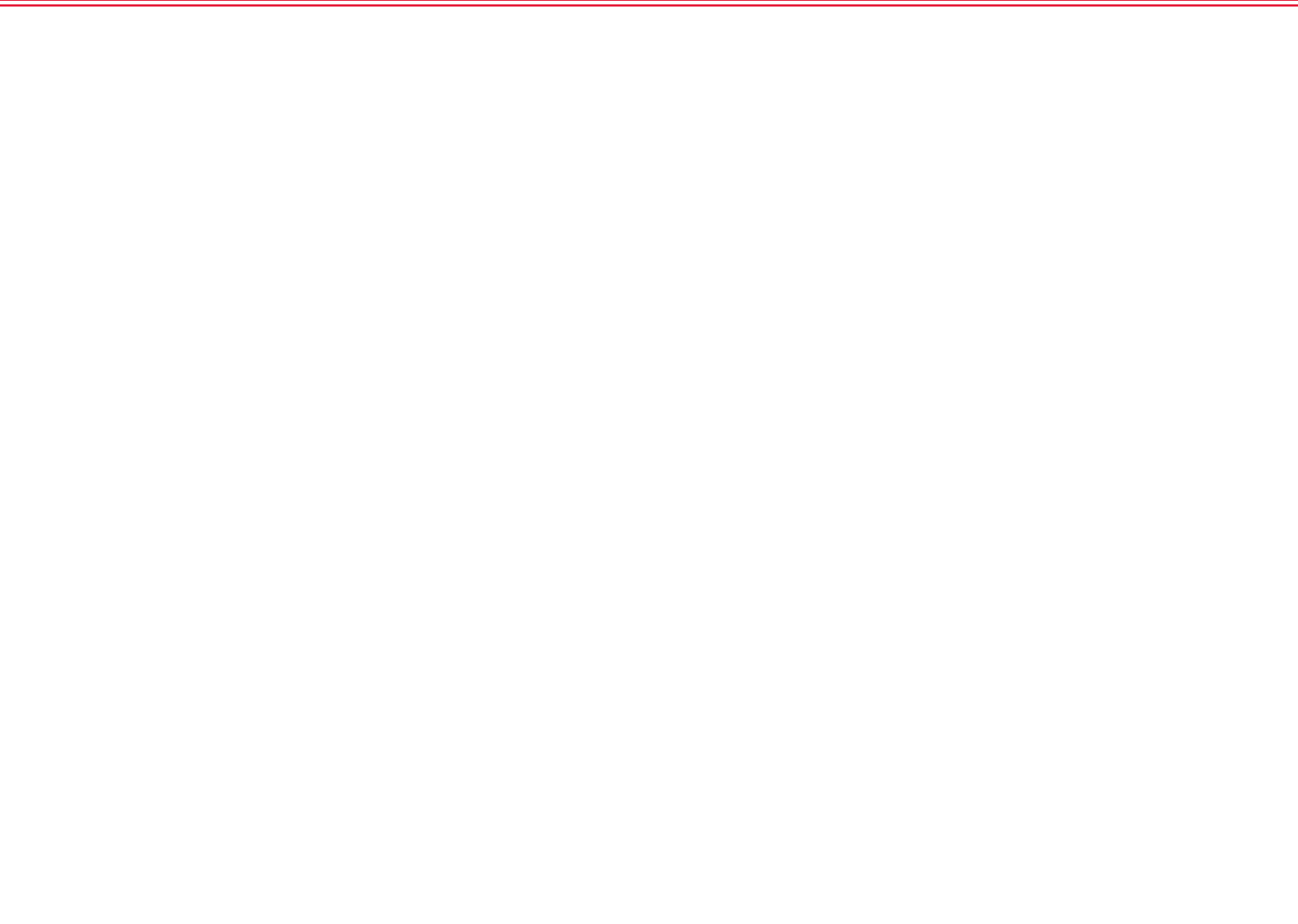


# **National Legislation Implementation Kit on Nuclear Security**

**Presented by the Republic of Indonesia  
to the Nuclear Security Summit  
The Hague, the Netherlands  
24–25 March 2014**



# **National Legislation Implementation Kit on Nuclear Security**

---

**Presented by the Republic of Indonesia  
to the Nuclear Security Summit  
The Hague, the Netherlands  
24–25 March 2014**

# Acknowledgements

The development of this *Kit* was made possible with the assistance of the Verification Research, Training and Information Centre (VERTIC), and through the financial support of Foreign Affairs, Trade and Development Canada (Global Partnership Program) and the Foreign and Commonwealth Office of the United Kingdom (Strategic Programme Fund). Translation and publication of the *Kit* was made possible with additional funding from the Federal Department of Foreign Affairs of Switzerland.

The Republic of Indonesia and VERTIC thank the Governments and intergovernmental organisations that commented and contributed to the development of this *Kit*. They also thank the Governments of the following States who supported this initiative when it was initiated and announced at the second Nuclear Security Summit (NSS II) in 2012: Australia, Canada, Czech Republic, Finland, Hungary, Italy, Japan, Kazakhstan, Malaysia, Morocco, the Netherlands, New Zealand, Norway, the Philippines, Poland, Republic of Korea, Romania, Singapore, Spain, Sweden, Thailand, Turkey, United Arab Emirates, United Kingdom, United States and Vietnam. They also thank the many countries that expressed their support for the *Kit* at the third Nuclear Security Summit (NSS III) in 2014.

Questions or comments regarding the *Kit* should be directed to:

★ **Directorate of International Security and Disarmament Affairs**

Directorate-General of Multilateral Affairs  
Ministry of Foreign Affairs of the Republic of Indonesia  
Jl. Taman Pejambon No. 6  
Jakarta Pusat, 10110, Indonesia  
Tel: +62 21 381 2646  
Fax: +62 21 385 8024  
[www.kemlu.go.id](http://www.kemlu.go.id)

★ **VERTIC**

Development House, 56–64 Leonard Street  
London EC2A 4LT, United Kingdom  
Tel: +44 20 7065 0880  
Fax: +44 20 7065 0890  
[www.vertic.org](http://www.vertic.org)

**Design and layout:** Rick Jones ([rick@studioexile.com](mailto:rick@studioexile.com))

**Printer:** 3g Evolution Limited, London, United Kingdom

<b>I. Foreword</b> .....	<b>4</b>
<b>II. Introduction</b> .....	<b>5</b>
1. Background	5
2. Structure and content of the <i>Kit</i>	6
<b>III. Model Law</b> .....	<b>9</b>
1. Overview of the [Act, Statute, Ordinance, etc.]	9
2. Definitions	10
3. National regulation of nuclear security	13
4. Physical protection and security of nuclear and other radioactive material and nuclear facilities; security of radioactive sources; notification of incidents	17
5. Transport, import, export and transit of nuclear material and radioactive sources	19
6. Offences and penalties	23
7. Jurisdiction	31
8. Criminal proceedings and international co-operation	32
<b>IV. Process for Developing Nuclear Security Legislation</b> .....	<b>37</b>
1. Assessment of a national nuclear programme	37
2. Assessment of a national legal and regulatory framework	37
3. Assessment of international instruments	38
4. Structure and level of detail of legislation	39
5. Participants in the process of developing legislation	39
6. Initial drafting	40
7. Legislative consideration; adoption and promulgation; oversight	40
8. Dispute resolution	40

# I. Foreword

The *National Legislation Implementation Kit on Nuclear Security* (hereinafter, *the Kit*) was developed further to a commitment made by Indonesia to the second Nuclear Security Summit (NSS II), which took place during 26–27 March 2012 in Seoul, Republic of Korea. Indonesia is presenting the *Kit* as its gift to the third Nuclear Security Summit (NSS III) in The Hague during 24–25 March 2014.

The *Kit*, which is not legally binding and serves as a framework which States may choose whether to consider, has two objectives:

- ★ to help States develop comprehensive national legislation on nuclear security, in accordance with their own respective legal cultures and internal legal processes; and
- ★ to provide States with references to a wide array of consolidated elements and provisions contained in relevant international legal instruments and guidance documents that together establish the global framework for nuclear security.

## 1. Background

Nuclear security focuses on the prevention, detection and response to criminal or other intentional unauthorized acts involving or directed at nuclear or other radioactive material, nuclear facilities, or facilities involved with the management of radioactive sources. Nuclear security legislation better enables States to effectively prevent, detect and respond to such acts, within the framework of their national legal systems and through international co-operation.

States increasingly recognize that nuclear security in one State depends on the effectiveness and strength of the nuclear security regime in other States, and this applies equally to the effectiveness and enforceability of national implementing legislation. Establishing a comprehensive regime, including the establishment of effective legislative frameworks, therefore requires appropriate international co-operation to enhance nuclear security worldwide.

Since the first Nuclear Security Summit (NSS I) in Washington, DC in 2010, the importance of strong national legislation to enhance nuclear security worldwide has been acknowledged. In addition, a number of international legal instruments have been identified which establish the global legal framework for nuclear security. These instruments fall within the competence of various international bodies, including the United Nations (UN), International Atomic Energy Agency (IAEA), International Civil Aviation Organization (ICAO) and International Maritime Organization (IMO). They are:

- ★ 1980 Convention on the Physical Protection of Nuclear Material as amended by the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM/A);<sup>1</sup>
- ★ 2005 International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT);
- ★ 2003 Code of Conduct on the Safety and Security of Radioactive Sources (Code of Conduct) and 2012 Guidance on the Import and Export of Radioactive Sources (Guidance);<sup>2</sup>
- ★ 2010 Convention on the Suppression of Unlawful Acts Relating to International Civil Aviation (Beijing Convention);<sup>3</sup>
- ★ 1988 Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation as amended by the Protocol of 2005 to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA 2005);<sup>4</sup> and
- ★ 1988 Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf as amended by the Protocol of 2005 to the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (SUA PROT 2005);<sup>5</sup>

1 The *Kit* refers to the consolidated text of the Convention, reflecting the 2005 Amendment. The 2005 Amendment is not yet in force. It will come into force once it has been ratified by two-thirds of the States Parties to the Convention.

2 The Code of Conduct and the Guidance are not legally binding. However, the IAEA General Conference urged “each State to write to the Director General that it fully supports and endorses the IAEA’s efforts to enhance the safety and security of radioactive sources, is working toward following the guidance contained in the IAEA Code of Conduct on the Safety and Security of Radioactive Sources, and encourages other countries to do the same” (GC(47)/RES/7.B). The IAEA General Conference also encouraged “States to act in accordance with the Guidance on a harmonized basis and to notify the Director General of their intention to do so as supplementary information to the Code of Conduct” (GC(48)/RES/10.D).

3 The Beijing Convention is not yet in force. It will come into force when twenty-two instruments of ratification, acceptance, approval or accession have been deposited.

4 The *Kit* refers to the consolidated text of the Convention, reflecting the text of the Protocol of 2005.

5 The *Kit* refers to the consolidated text of the Protocol, reflecting the text of the Protocol of 2005.

There are additional legal instruments, which are related to nuclear security. These include the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the Agreements between the International Atomic Energy Agency and States required in connection with the NPT (Comprehensive Safeguards Agreements),<sup>6</sup> Model Protocol Additional to the Agreement(s) between State(s) and the International Atomic Energy Agency for the Application of Safeguards (Additional Protocol),<sup>7</sup> as well as the nuclear weapon-free zone treaties and other regional agreements which require their respective States Parties to implement safeguards.<sup>8</sup> These agreements can play an important role in relation to the licensing of certain activities involving nuclear material, as will be seen in Part III (Model Law) of this *Kit*.<sup>9</sup>

In addition, there is the 1996 Comprehensive Nuclear-Test-Ban Treaty (CTBT) to consider.<sup>10</sup> There is an interplay between criminalisation in national law of Article I (1) of the CTBT which, at entry-into-force, will establish the obligation of States Parties to, in accordance with their constitutional processes, take any necessary measures to prohibit and prevent nuclear explosions, and the CPPNM/A which requires national measures to prevent the illegal acquisition of nuclear material for potential use in such nuclear explosions.

Finally, similarly to ICSANT, the 1998 International Convention for the Suppression of Terrorist Bombings (ICSTB) requires States Parties to criminalise activities involving a lethal device, which is designed, or has the capability, to cause death, serious bodily injury or substantial material damage through the release, dissemination or impact of radiation or radioactive material. States that may wish to implement the offences in the ICSTB and the CTBT, discussed in the previous paragraph, are referred to the footnotes in Section 6.3 of Part III of this *Kit*.

Ultimately, responsibility for establishing a robust national nuclear security regime lies entirely with States, which must ensure the security of any nuclear and other radioactive material, nuclear facilities and facilities involved with the management of radioactive sources, within their jurisdiction. Each State should aim to establish a nuclear security regime which is in line with the State's constitutional and national processes. Additionally, the implementation of the international legal instruments for nuclear security will necessarily involve a wide range of national stakeholders, including government agencies, industry, research institutions and universities, medical centres, etc.

## 2. Structure and content of the *Kit*

The *Kit* includes a Model Law (Part III) and a useful description of the process for developing nuclear security legislation (Part IV).

The Model Law in Part III was developed taking into account existing documentation on nuclear security, including:

- ★ *Combating Illicit Trafficking in Nuclear and other Radioactive Material* (IAEA Nuclear Security Series No. 6) (2007);<sup>11</sup>

6 IAEA Document INFCIRC/153 (Corrected).

7 IAEA Document INFCIRC/540 (Corrected).

8 These are the 1967 Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco), 1985 South Pacific Nuclear Free Zone Treaty (Treaty of Rarotonga), 1995 Treaty on the Southeast Asia Nuclear Weapon-Free Zone (Treaty of Bangkok), 1996 African Nuclear Weapon-Free Zone Treaty (Treaty of Pelindaba) and 2006 Treaty on a Nuclear-Weapon-Free Zone in Central Asia (Semipalatinsk Treaty).

9 See Part III (Model Law), Section 3.2, paragraph (3)(g).

10 The CTBT was adopted by the General Assembly of the UN on 10 September 1996 (UNGA Resolution 50/245). It will enter into force 180 days after the date of deposit of the instruments of ratification by all States listed in Annex 2 of the Treaty (Article XIV (1)).

11 See <http://www-pub.iaea.org/books/IAEABooks/7806/Combating-Illicit-Trafficking-in-Nuclear-and-Other-Radioactive-Material>.



- ★ *Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities* (INFCIRC/225/Revision 5) (IAEA Nuclear Security Series No. 13) (2011);<sup>12</sup>
- ★ *Computer Security at Nuclear Facilities* (IAEA Nuclear Security Series No. 17) (2011);<sup>13</sup>
- ★ *Objective and Essential Elements of a State's Nuclear Security Regime* (IAEA Nuclear Security Series No. 20) (2013);<sup>14</sup>
- ★ *The International Legal Framework for Nuclear Security* (IAEA International Law Series No. 4) (2011);<sup>15</sup>
- ★ *IAEA Handbook on Nuclear Law* (2003);<sup>16</sup>
- ★ *IAEA Handbook on Nuclear Law – Implementing Legislation* (2010);<sup>17</sup>
- ★ IAEA report by the Director General *Nuclear Security – Measures to Protect Against Nuclear Terrorism* (GOV/2006/46-GC(50)/13) (16 August 2006);<sup>18</sup>
- ★ UNODC *Legislative Guide to the Universal and Anti-Terrorism Conventions and Protocols* (2004);<sup>19</sup>
- ★ UNODC *Guide for the Legislative Incorporation and Implementation of the Universal Anti-Terrorism Instruments* (2006);<sup>20</sup>
- ★ UNODC *Model Legislative Provisions against Terrorism* (2009);<sup>21</sup>
- ★ Preparatory Commission for the CTBTO *Guide to CTBT National Implementation Measures* (2013);<sup>22</sup> and
- ★ VERTIC report *Illicit Trafficking of Nuclear and other Radioactive Material: The Legislative Response* (2012).<sup>23</sup>

Part III of this *Kit* proposes a Model Law to implement a number of international instruments, listed in the background discussion above, to help States strengthen and complement their existing legislative frameworks for nuclear security.<sup>24</sup> In addition, duplication of national implementation obligations among these instruments, especially in the areas of preparatory offences, jurisdiction, criminal proceedings and international co-operation, has been harmonized in the model provisions.

The Model Law includes:

- ★ an overview (objective, scope and a description of the Model Law's sections) (Section 1);
- ★ definitions (Section 2);

as well as provisions for:

12 See <http://www-pub.iaea.org/books/IAEABooks/8629/Nuclear-Security-Recommendations-on-Physical-Protection-of-Nuclear-Material-and-Nuclear-Facilities-INFCIRC-225-Revision-5>.

13 See <http://www-pub.iaea.org/books/IAEABooks/8691/Computer-Security-at-Nuclear-Facilities>.

14 See [http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1590\\_web.pdf](http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1590_web.pdf).

15 See [http://www-pub.iaea.org/MTCD/publications/PDF/Pub1486\\_web.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/Pub1486_web.pdf).

16 See [http://www-pub.iaea.org/MTCD/publications/PDF/Pub1160\\_web.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/Pub1160_web.pdf).

17 See [http://www-pub.iaea.org/MTCD/publications/PDF/Pub1456\\_web.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/Pub1456_web.pdf).

18 See [http://www.iaea.org/About/Policy/GC/GC50/GC50Documents/English/gc50-13\\_en.pdf](http://www.iaea.org/About/Policy/GC/GC50/GC50Documents/English/gc50-13_en.pdf).

19 See <http://www.unodc.org/pdf/terrorism/TATs/en/1LGen.pdf>.

20 See [http://www.unodc.org/documents/terrorism/Publications/Guide\\_Legislative\\_Incorporation\\_Implementation/English.pdf](http://www.unodc.org/documents/terrorism/Publications/Guide_Legislative_Incorporation_Implementation/English.pdf).

21 See [http://www.unodc.org/tldb/pdf/Model\\_Law\\_against\\_Terrorism.doc](http://www.unodc.org/tldb/pdf/Model_Law_against_Terrorism.doc).

22 See [http://www.ctbto.org/fileadmin/user\\_upload/legal/June\\_2013\\_Guide\\_to\\_CTBT\\_National\\_Implementation\\_Measures.pdf](http://www.ctbto.org/fileadmin/user_upload/legal/June_2013_Guide_to_CTBT_National_Implementation_Measures.pdf).

23 See [http://www.vertic.org/media/assets/Publications/I/TR\\_WEB.pdf](http://www.vertic.org/media/assets/Publications/I/TR_WEB.pdf).

24 The authors of the *Kit* are mindful that certain international instruments listed in the Background discussion are not yet in force (the 2005 Amendment to the CPPNM and Beijing Convention), and that the Code of Conduct is not legally binding. The Model Law in Part III is structured in such a way that States may choose to implement some model provisions in their national law while not implementing others, in line with their international obligations, treaty implementation practice and domestic legal frameworks.

- ★ national regulation of nuclear security, including the establishment of a competent authority (Section 3);
- ★ physical protection and security of nuclear and other radioactive material and nuclear facilities; security of radioactive sources; notification of incidents (Section 4);
- ★ transport, import, export and transit of nuclear material and radioactive sources (Section 5);
- ★ offences and penalties (Section 6);
- ★ jurisdiction (Section 7); and
- ★ criminal proceedings and international co-operation (Section 8).

The relevant international authority or authorities (e.g., treaty, code, guidance) for each model provision are clearly indicated in an accompanying footnote.

The Model Law focuses on measures for the prevention, detection and response to criminal or other intentional unauthorized acts involving or directed at nuclear or other radioactive material, nuclear facilities, or facilities involved with the management of radioactive sources, and does not address the national implementation of the relevant international instruments related to nuclear liability, safety and safeguards. An effective legal framework to ensure the peaceful uses of nuclear energy should, however, address all of the aforementioned areas in a comprehensive manner. The authors of the Model Law especially acknowledge the synergies between safety and security, which have the common aim of protecting human health, society and the environment. Comprehensive measures taken for nuclear security can contribute to addressing nuclear safety and vice versa, thus relevant provisions such as those found in the IAEA Code of Conduct are included in the Model Law.

The Model Law does not contain miscellaneous and final clauses, which are often specific to national legislation. Chapter 15 of the *IAEA Handbook on Nuclear Law – Implementing Legislation (2010)*, however, provides examples.

Part IV of the *Kit* is a description of the process for developing nuclear security legislation. Although many, if not most, States have established procedures for developing national legislation, the somewhat unique aspects of nuclear security suggest that some guidance on the process for preparing a law on this subject could be useful to some States.

States ultimately have the discretion to draft and adopt nuclear security legislation adapted to their national circumstances and in line with their legislative and regulatory structures. The Model Law in Part III is not intended to be a ‘one size fits all’ proposition. It is a tool which legislative drafters may freely use, while taking into consideration their country’s legal framework, level of nuclear development, and other national circumstances. Some States may choose to adopt a stand-alone nuclear security law based on the *Kit*’s Model Law, while others may choose to extract model provisions and use them to amend separate laws. For example, the provisions in Section 5 could be used to amend strategic trade or import-export control laws, the offences and penalties in Section 6 of the Model Law could be used to amend a criminal or penal code, and so on. It should also be noted that additional implementing regulations will normally be required to provide more detail for a national nuclear security legal framework.

**LEGAL NOTICE:** This *Kit* does not constitute legal advice. Neither the Government of Indonesia nor VERTIC accept any liability with regard to any use of this document.

## 1. Overview of the [Act, Statute, Ordinance, etc.]

---

### 1.1 Objective and scope of the [Act, Statute, Ordinance, etc.]

- (1) The objective of this [Act, Statute, Ordinance, etc.] is to establish a comprehensive legislative framework for nuclear security, enabling the prevention, detection and response to unauthorized activities involving nuclear material, nuclear facilities and radioactive sources.
- (2) This [Act, Statute, Ordinance, etc.] applies-
  - (a) to items that are under regulatory control including nuclear material, nuclear facilities and facilities involved with the management of radioactive material; and
  - (b) to items that are not under regulatory control including lost, stolen, or illicitly trafficked nuclear or other radioactive material, as well as orphan sources.

### 1.2 Order of the [Act, Statute, Ordinance, etc.]

This [Act, Statute, Ordinance, etc.] is ordered as follows-

- (a) definitions (Section 2);
- (b) national regulation of nuclear security (Section 3);
- (c) physical protection and security of nuclear and other radioactive material and nuclear facilities; security of radioactive sources; notification of incidents (Section 4);
- (d) transport, import, export and transit of nuclear material and radioactive sources (Section 5);
- (e) offences and penalties (Section 6);
- (f) jurisdiction (Section 7); and
- (g) criminal proceedings and international co-operation (Section 8).

### 1.3 Description of the Sections of this [Act, Statute, Ordinance, etc.]

- (1) Definitions for the purposes of this [Act, Statute, Ordinance, etc.] are found in Section 2. The rather specific field of nuclear energy development has evolved on a global basis, in particular with the development of a number of international legal instruments and guidance documents. Nuclear security can no longer be considered only a domestic matter for individual States, as it inherently involves transnational issues: e.g., technology transfer, international terrorist threats, movement of materials and equipment, etc. Therefore, to ensure [State's] ability to participate in this globalized technology, its national legislation and regulations need to be consistent with this framework. Also, because of its unique technical dimensions, nuclear technology requires precise definitions on what activities and materials are covered. Therefore, Section 2 sets forth the most relevant definitions.
- (2) Sections 3 and 4 of this [Act, Statute, Ordinance, etc.] provide for national regulation of nuclear security and for the physical protection and security of nuclear and other radioactive material and nuclear facilities; the security of radioactive sources; and the notification of incidents. The [competent authority] for enforcement of this [Act, Statute, Ordinance, etc.] is established under Section 3. This

Section also includes measures for licensing of activities involving nuclear material and radioactive sources, and for inspections, verification and monitoring and enforcement. Section 4 gives the [competent authority] broad authority to establish and implement a physical protection regime for nuclear material and facilities, as well as the authority to regulate the security of radioactive sources.

- (3) Section 5 of this [Act, Statute, Ordinance, etc.] provides for the regulation of transport, import, export and transit of nuclear material and radioactive sources. These measures are preventive in order to ensure that transported nuclear and radioactive sources are not unlawfully diverted or illicitly trafficked. If these measures are violated, they should be brought under the various provisions for criminalisation (Section 6), assertion of jurisdiction (Section 7) and criminal proceedings and international co-operation (Section 8). In view of the global character of the nuclear industry and the occasional necessity for international shipment of these materials, clear provisions are justified in the national legislation of [State].
- (4) Section 6 of this [Act, Statute, Ordinance, etc.] provides for the criminalisation of offences involving nuclear and other radioactive material, nuclear facilities, and nuclear explosive devices. Acts involving nuclear explosive devices on or against aircraft, ships and fixed platforms are also criminalised. The provisions in Section 6 are intended to serve as a deterrent to unlawful activities involving nuclear and other radioactive material and nuclear facilities; however, they cannot be a substitute for the preventive measures that are provided for in Sections 3, 4 and 5 of this [Act, Statute, Ordinance, etc.].
- (5) Section 7 of this [Act, Statute, Ordinance, etc.] provides for the assertion of jurisdiction over the offences in Section 6. The concept of jurisdiction involves measures by [State] to ensure that action will be taken to exercise legal control over persons who may have committed acts jeopardizing nuclear security. This is particularly important in the nuclear security field because of its inherent transnational character. Alleged perpetrators should not be able to avoid enforcement measures in one State by crossing international borders or asserting that their acts are immune from prosecution because they were, for example, political in character.
- (6) Nuclear security is inherently transnational in character as States transfer nuclear material and radioactive sources, and related technology, to one another for nuclear energy, research and medical purposes, and for other needs important to the development, safety and security of [State] and its citizens. The measures in Section 8 (along with those in Sections 6 and 7) facilitate the enforcement of this [Act, Statute, Ordinance, etc.] through criminal investigations and prosecution and extradition, as well as through mutual legal assistance (MLA) and other forms of international co-operation with other States. This includes MLA in the event an investigation or other criminal proceeding is underway or assistance from [the competent authority] to another State with the recovery of nuclear material or radioactive sources in the event they were illegally acquired, diverted or trafficked.

## 2. Definitions

### 2.1 “Category 1 radioactive source”

“Category 1 radioactive source” means a source which, if not safely managed or securely protected, would be likely to cause permanent injury to a person who handled it, or were otherwise in contact with it, for more than a few minutes. It would probably be fatal to be close to this amount of unshielded material for a period of a few minutes to an hour. These sources are typically used in practices such as radiothermal generators, irradiators and radiation teletherapy.<sup>25</sup>

.....  
 25 Code of Conduct, Annex I; Guidance, Paragraph 3(a). The competent authority should be empowered to adopt, in regulations, a detailed categorization of radioactive sources, based on internationally recognized guidance such as the Code of Conduct, Annex I, Table 1 and “Categorization of radioactive sources”, IAEA-TECDOC-1344.

## 2.2 “Category 2 radioactive source”

“Category 2 radioactive source” means a source which, if not safely managed or securely protected, could cause permanent injury to a person who handled it, or were otherwise in contact with it, for a short time (minutes to hours). It could possibly be fatal to be close to this amount of unshielded radioactive material for a period of hours to days. These sources are typically used in practices such as industrial gamma radiography, high dose rate brachytherapy and medium dose rate brachytherapy.<sup>26</sup>

## 2.3 “Computer security”

“Computer security” means the security of computers and interconnected systems and networks.<sup>27</sup>

## 2.4 “Device”

“Device” means-

- (a) any nuclear explosive device; or
- (b) any radioactive material dispersal or radiation-emitting device which may, owing to its radiological properties, cause death, serious bodily injury or substantial damage to property or to the environment.<sup>28</sup>

## 2.5 “International nuclear transport”

“International nuclear transport” means the carriage of a consignment of nuclear material by any means of transportation intended to go beyond the territory of the State where the shipment originates beginning with the departure from a facility of the shipper in that State and ending with the arrival at a facility of the receiver within the State of ultimate destination.<sup>29</sup>

## 2.6 “Management of radioactive sources”

“Management of radioactive sources” means the administrative and operational activities that are involved in the manufacture, supply, receipt, possession, storage, use, transfer, import, export, transport, maintenance, recycling or disposal of radioactive sources.<sup>30</sup>

## 2.7 “Nuclear facility”

“Nuclear facility” means-

- (a) a facility (including associated buildings and equipment) in which nuclear material is produced, processed, used, handled, stored or disposed of, if damage to or interference with such facility could lead to the release of significant amounts of radiation or radioactive material;<sup>31</sup>

26 Code of Conduct, Annex I; Guidance, Paragraph 3(b). The competent authority should be empowered to adopt, in regulations, a detailed categorization of radioactive sources, based on internationally recognized guidance such as the Code of Conduct, Annex I, Table 1 and “Categorization of radioactive sources”, IAEA-TECDOC-1344.

27 See, for example, *Computer Security at Nuclear Facilities* (IAEA Nuclear Series No. 17) (2011), p. 5.

28 ICSANT, Article 1(4).

29 CPPNM/A, Article 1(c).

30 Code of Conduct, Paragraph 1.

31 CPPNM/A, Article 1(d).

- (b) any nuclear reactor, including reactors installed on vessels, vehicles, aircraft or space objects for use as an energy source in order to propel such vessels, vehicles, aircraft or space objects or for any other purpose;<sup>32</sup> or
- (c) any plant or conveyance being used for the production, storage, processing or transport of radioactive material.<sup>33</sup>

## 2.8 “Nuclear material”

- (1) “Nuclear material” means plutonium except that with isotopic concentration exceeding 80% in plutonium-238; uranium-233; uranium enriched in the isotope 235 or 233; uranium containing the mixture of isotopes as occurring in nature other than in the form of ore or ore-residue; any material containing one or more of the foregoing.<sup>34</sup>
- (2) Whereby “uranium enriched in the isotope 235 or 233” means uranium containing the isotope 235 or 233 or both in an amount such that the abundance ratio of the sum of these isotopes to the isotope 238 is greater than the ratio of the isotope 235 to the isotope 238 occurring in nature.<sup>35</sup>

## 2.9 “Orphan source”

“Orphan source” means a radioactive source which is not under regulatory control, either because it has never been under regulatory control, or because it has been abandoned, lost, misplaced, stolen or transferred without proper authorization.<sup>36</sup>

## 2.10 “Radioactive material”

“Radioactive material” means nuclear material and other radioactive substances which contain nuclides which undergo spontaneous disintegration (a process accompanied by emission of one or more types of ionizing radiation, such as alpha-, beta-, neutron particles and gamma rays) and which may, owing to their radiological or fissile properties, cause death, serious bodily injury or substantial damage to property or to the environment.<sup>37</sup>

## 2.11 “Radioactive source”

“Radioactive source” means radioactive material that is permanently sealed in a capsule or closely bonded, in a solid form and which is not exempt from regulatory control. It also means any radioactive material released if the radioactive source is leaking or broken, but does not mean material encapsulated for disposal, or nuclear material within the nuclear fuel cycles of research and power reactors.<sup>38</sup>

## 2.12 “Sabotage”

“Sabotage” means any deliberate act directed against a nuclear facility or nuclear material in use, storage or transport which could directly or indirectly endanger the health and safety of personnel, the public or the environment by exposure to radiation or release of radioactive substances.<sup>39</sup>

---

<sup>32</sup> ICSANT, Article 1(3)(a).

<sup>33</sup> ICSANT, Article 1(3)(b).

<sup>34</sup> CPPNM/A, Article 1(a); ICSANT, Article 1(2); Beijing Convention, Article 2(f).

<sup>35</sup> CPPNM/A, Article 1(b); ICSANT, Article 1(2); Beijing Convention, Article 2(g).

<sup>36</sup> Code of Conduct, Paragraph 1.

<sup>37</sup> ICSANT, Article 1(1); Beijing Convention, Article 2(e).

<sup>38</sup> Code of Conduct, Paragraph 1.

<sup>39</sup> CPPNM/A, Article 1(e).

#### 3.1 Establishment of the competent authority

- (1) The [competent authority] is hereby established as an independent public agency for the enforcement of this [Act, Statute, Ordinance, etc.] and any regulations issued hereunder. The [competent authority] shall be composed of [composition of a board] and [composition of the senior administration], and other officials as may be determined by the [board] [senior administration] in the regulations issued under this [Act, Statute, Ordinance, etc.].<sup>40</sup>
- (2) The [competent authority] established under paragraph (1) shall be effectively independent of other bodies responsible for-
  - (a) promotion or utilization of nuclear energy;<sup>41</sup> or
  - (b) management of radioactive sources or promotion of their use.<sup>42</sup>
- (3) The budget of the [competent authority], based on an annual appropriation from the [national assembly/parliament], shall be sufficient enough to ensure that the [competent authority] has the financial and human resources necessary to fulfil its assigned responsibilities under this [Act, Statute, Ordinance, etc.].
- (4) The [competent authority] shall ensure effective co-operation and co-ordination of nuclear security responsibilities among licensees and other relevant government ministries and agencies, including law enforcement and intelligence agencies. Such co-operation and co-ordination shall extend to-
  - (a) the prevention, detection and response to unauthorized activities involving nuclear material, nuclear facilities and radioactive sources; and
  - (b) the development of design basis and other threat assessments, in relation to nuclear material, nuclear facilities and facilities involved with the management of radioactive sources.
- (5) In respect of nuclear material,<sup>43</sup> the [competent authority] shall-
  - (a) be responsible for the implementation and enforcement of this [Act, Statute, Ordinance, etc.] and any regulations issued hereunder;<sup>44</sup>
  - (b) be responsible for the implementation of the physical protection regime for nuclear material provided for in this [Act, Statute, Ordinance, etc.] and any regulations issued hereunder;<sup>45</sup> and
  - (c) serve as the point of contact for the International Atomic Energy Agency and other States, in relation to matters within the scope of the Convention on the Physical Protection of Nuclear Material, as amended.<sup>46</sup>
- (6) In respect of radioactive sources, the [competent authority] shall-
  - (a) be responsible for the implementation and enforcement of this [Act, Statute, Ordinance, etc.] and any regulations issued hereunder;<sup>47</sup>
  - (b) have the powers and characteristics listed in paragraphs 20 to 22 of the Code of Conduct on the Safety and Security of Radioactive Sources;<sup>48</sup>

40 CPPNM/A, Article 2A(2)(b) and (3) (Fundamental Principle D); Code of Conduct, Paragraph 19(a).

41 CPPNM/A, Article 2A(3) (Fundamental Principle D).

42 Code of Conduct, Paragraph 19(a).

43 States may wish to consider combining functions related to nuclear material to those related to radioactive sources in paragraph (6).

44 CPPNM/A, Article 2A(3) (Fundamental Principle A).

45 CPPNM/A, Article 2A(2)(b) and (3). See Section 4.1.

46 CPPNM/A, Article 5(1). The competent authority could also be designated as the point of contact for the Agency and other States, in relation to matters within the scope of the Conventions on Early Notification of a Nuclear Accident and Assistance in the Case of a Nuclear Accident or Radiological Emergency.

47 Code of Conduct, Paragraph 19(i).

48 Code of Conduct, Paragraph 19(a).



- (c) facilitate training of staff of the [competent authority], [State] law enforcement agencies and emergency services organizations, as well as training for manufacturers, suppliers and users of radioactive sources;<sup>49</sup> and
- (d) serve as the point of contact for the purpose of facilitating exports and imports in accordance with the Code of Conduct on the Safety and Security of Radioactive Sources and Guidance on the Import and Export of Radioactive Sources.<sup>50</sup>
- (7) The [competent authority] shall additionally serve as the point of contact -
- (a) within the scope of the International Convention for the Suppression of Acts of Nuclear Terrorism, for-
- (i) the Secretary-General of the United Nations; and
- (ii) States Parties to that Convention;<sup>51</sup>
- (b) within the scope of the 2010 Convention on the Suppression of Unlawful Acts Relating to International Civil Aviation, on matters related to enforcement of this [Act, Statute, Ordinance, etc.], for-
- (i) the Council of the International Civil Aviation Organization;<sup>52</sup> and
- (ii) States Parties to that Convention;
- (c) within the scope of the 1988 Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (as amended by the 2005 Protocol), on matters related to enforcement of this [Act, Statute, Ordinance, etc.], for-
- (i) the Secretary-General of the International Maritime Organization (IMO); and
- (ii) States Parties to that Convention;<sup>53</sup> and
- (d) within the scope of the 1988 Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (as amended by the 2005 Protocol), on matters related to enforcement of this [Act, Statute, Ordinance, etc.], for-
- (i) the Secretary-General of the International Maritime Organization (IMO); and
- (ii) States Parties to that Convention.<sup>54 55</sup>
- (8) The [competent authority] may designate or establish further authorities to which it may assign specific duties with regard to the implementation of this [Act, Statute, Ordinance, etc.] and any regulations issued hereunder.

49 Code of Conduct, Paragraphs 10, 22(m).

50 Guidance, Paragraph 4. Details about the point of contact should be communicated to the IAEA.

51 ICSANT, Article 7(4).

52 Beijing Convention, Article 19.

53 SUA 2005, Article 8bis(15).

54 SUA PROT 2005, Article 1, para. 1.

55 In addition to serving as a point of contact for the UN, ICAO and IMO, States may consider making the competent authority the point of contact for certain nuclear weapon-free-zone treaties as well as the CTBTO, as follows:

“... within the scope of the [Treaty of Tlatelolco (Article 7); Treaty of Bangkok (Articles 8-9); Treaty of Pelindaba (Article 12)], on matters related to compliance and for liaison with-

(i) [the policy-making organ(s)] and  
(ii) States Parties to that Treaty;

... within the scope of the 1996 Comprehensive Nuclear-Test-Ban Treaty, as focal point for liaison with-

(i) the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organisation;  
(ii) States Signatories to the Comprehensive Nuclear-Test-Ban Treaty;

and after entry into force of the Treaty,

(i) the Comprehensive Nuclear-Test-Ban Treaty Organisation; and  
(ii) States Parties to that Treaty”.

See 1996 Resolution Establishing the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization, Annex, Paragraph 4 and CTBT, Article III (4).



### 3.2 Licensing

- (1) No person shall receive, possess, use, transfer, alter, or dispose of nuclear material without a license from the [competent [authority] [authorities<sup>56</sup>]].<sup>57</sup>
- (2) No person shall export, import, transport, or otherwise carry, send or move nuclear material into or out of [State], without a license from the [competent authority].<sup>58</sup>
- (3) The [competent authority] shall make the issuance of a license under paragraphs (1) or (2) conditional on the applicant meeting the following requirements:
  - (a) accepting prime responsibility for the implementation of physical protection of nuclear material or of nuclear facilities;<sup>59</sup>
  - (b) giving an assurance that it will give due priority to the security culture, to its development and maintenance necessary to ensure its effective implementation in the entire organization;<sup>60</sup>
  - (c) giving an assurance that it will take a graded approach<sup>61</sup> to physical protection requirements, taking into account the competent authority's current evaluation of the threat, the relative attractiveness, the nature of the material and potential consequences associated with the unauthorized removal of nuclear material and with the sabotage against nuclear material or nuclear facilities;<sup>62</sup>
  - (d) having in place several layers and methods of physical protection (structural or other technical, personnel and organizational) that have to be overcome or circumvented by an adversary in order to achieve his objectives;<sup>63</sup>
  - (e) having in place a quality assurance policy and quality assurance programmes to provide confidence that specified requirements for all activities important to physical protection are satisfied;<sup>64</sup>
  - (f) having in place contingency (emergency) plans to respond to unauthorized removal of nuclear material or sabotage of nuclear facilities or nuclear material, or attempts thereof;<sup>65</sup>
  - (g) giving an assurance that it will fully co-operate with the [competent authority] in the implementation of [State's] [Comprehensive Safeguards Agreement with the International Atomic Energy Agency] [Additional Protocol with the International Atomic Energy Agency] [Voluntary Offer Safeguards Agreement] [Item Specific Safeguards Agreement], as [it applies] [they apply] to any nuclear material or nuclear facility covered by the license;
  - (h) accepting prime responsibility for computer security related to activities covered by the license; and
  - (i) giving an assurance that it has conducted a design basis threat analysis or other appropriate threat assessment of computer security, taking into consideration any relevant threat assessments undertaken by the [competent authority] related to cyber and nuclear security.<sup>66</sup>

56 In some States, licensing and other activities under a nuclear security framework may be carried out by more than one authority, in which case the legislative drafter could consider including 'competent authorities' here and throughout the law.

57 CPPNM/A, Articles 2A(3) (Fundamental Principle C), 7(1)(a).

58 CPPNM/A, Articles 2A(3), 7(1) (d).

59 CPPNM/A, Article 2A(3) (Fundamental Principle E).

60 CPPNM/A, Article 2A(3) (Fundamental Principle F). '[Nuclear] security culture' refers to "the assembly of characteristics, attitudes and behaviours of individuals, organizations and institutions which serves as means to support, enhance and sustain nuclear security". *Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities* (INFCIRC/225/Revision 5) (IAEA Nuclear Security Series No. 13) (2011), p. 52.

61 That is, "the application of physical protection measures proportional to the potential consequences of a malicious act". *Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities* (INFCIRC/225/Revision 5) (IAEA Nuclear Security Series No. 13) (2011), p. 51.

62 CPPNM/A, Article 2A(3) (Fundamental Principles G and H).

63 CPPNM/A, Article 2A(3) (Fundamental Principle I).

64 CPPNM/A, Article 2A(3) (Fundamental Principle J).

65 CPPNM/A, Article 2A(3) (Fundamental Principle K).

66 See *Computer Security at Nuclear Facilities* (IAEA Nuclear Security Series No. 17) (2011), Section 6.3.1.

- (4) No person shall undertake management of radioactive sources without a license from the [competent authority].<sup>67</sup>
- (5) Exemptions from the licensing requirement in paragraph (4) shall be provided for in the regulations issued under this [Act, Statute, Ordinance, etc.].<sup>68</sup>
- (6) The [competent authority] shall make the issuance of a license under paragraph (4) conditional on the applicant meeting the requirements in subparagraphs (3)(h) and (i).
- (7) The regime for license application and evaluation, the issuance of licenses, and the conditions for holding a licence shall be provided for in the regulations issued under this [Act, Statute, Ordinance, etc.].<sup>69</sup>

### 3.3 National register of nuclear material and radioactive sources

- (1) The [competent authority] shall establish a national register of nuclear material.
- (2) The [competent authority] shall establish a national register of radioactive sources.<sup>70</sup>
- (3) The national register in paragraph (2) shall include, at a minimum, all Category 1 and 2 radioactive sources located within the territory of [State].
- (4) The national registers in paragraphs (1) and (2) shall be further provided for in the regulations issued under this [Act, Statute, Ordinance, etc.].

### 3.4 Inspections, verification and monitoring, and enforcement

- (1) The [competent authority] shall implement a system of inspection of nuclear facilities and transport, through regulations issued under this [Act, Statute, Ordinance, etc.], to verify compliance with the applicable requirements and conditions of any license issued under Section 3.2, paragraphs (1) and (2).<sup>71</sup>
- (2) The [competent authority] shall implement a system of verification of the safety and security of radioactive sources through safety and security assessments; monitoring and verification of compliance with any license issued under Section 3.2, paragraph (4); inspections; and the maintenance of appropriate records by license holders. The verification system shall be provided for in the regulations issued under this [Act, Statute, Ordinance, etc.].<sup>72</sup>
- (3) Where the [competent authority] has established that any person or licensee has committed a violation of relevant nuclear security regulations issued under this [Act, Statute, Ordinance, etc.], the conditions of a license issued under Section 3.2, or other requirements that do not constitute a criminal offense under Section 6 of this [Act, Statute, Ordinance, etc.], the [competent authority] may impose any of the following penalties: additional license conditions, license suspension, license revocation or imposition of a civil monetary penalty not to exceed [amount] for each such violation.<sup>73</sup>

---

<sup>67</sup> Code of Conduct, Paragraph 19(c).

<sup>68</sup> Code of Conduct, Paragraph 19(d).

<sup>69</sup> CPPNM/A, Article 2A(3) (Fundamental Principle C); Code of Conduct, Paragraphs 19(c), 20(e), 22(c).

<sup>70</sup> Code of Conduct, Paragraph 11.

<sup>71</sup> CPPNM/A, Article 2A(3) (Fundamental Principle C).

<sup>72</sup> Code of Conduct, Paragraphs 19(h), 20(h), 22(i). Such a system should include record-keeping by the competent authority of records of persons with authorizations in respect of radioactive sources, with a clear indication of the type(s) of radioactive sources that they are authorized to use, and appropriate records of the transfer and disposal of the radioactive sources on termination of the authorizations (Paragraph 22(c)).

<sup>73</sup> CPPNM/A, Article 2A(3) (Fundamental Principle C); Code of Conduct, Paragraph 20(d).

### 3.5 Confidentiality; computer security

- (1) Any information which is in the possession of the [competent authority] pursuant to the implementation of this [Act, Statute, Ordinance, etc.] and any regulations issued hereunder, the unauthorized disclosure of which could compromise national security or the physical protection of nuclear material and nuclear facilities, or of radioactive sources, shall be protected as confidential.<sup>74</sup>
- (2) [The competent authority] shall not provide to unauthorized persons any information which is otherwise prohibited by the national law of [State], or which would jeopardize the security of [State] or the physical protection of nuclear material.<sup>75</sup>
- (3) Computer security measures shall be applied at all times to the information covered by this Section, and falling with this [Act, Statute, Ordinance, etc.] and any regulations issued hereunder. The [competent authority] shall be responsible for developing standards and guidelines for computer security in nuclear facilities and facilities involved in the management of radioactive sources.

## 4. Physical protection and security of nuclear and other radioactive material and nuclear facilities; security of radioactive sources; notification of incidents

### 4.1 Physical protection and security of nuclear and other radioactive material and nuclear facilities

- (1) The [competent authority] shall establish, implement and maintain an appropriate physical protection regime applicable to nuclear material and nuclear facilities under the jurisdiction of [State] with the aim of:
  - (a) protecting against theft and other unlawful taking of nuclear material in use, storage and transport;
  - (b) ensuring the implementation of rapid and comprehensive measures to locate and where appropriate, recover missing or stolen material, and to act in accordance with Section 8.3, paragraph (4) when the material is located outside the territory of [State];
  - (c) protecting nuclear material and nuclear facilities against sabotage; and
  - (d) mitigating or minimizing the radiological consequences of sabotage.<sup>76</sup>
- (2) The physical protection regime for nuclear material and nuclear facilities in paragraph (1) shall be further provided for in the regulations issued under this [Act, Statute, Ordinance, etc.].
- (3) Upon seizing or otherwise taking control of radioactive material, devices or nuclear facilities, following the commission of an offence set forth in this [Act, Statute, Ordinance, etc.], the [competent authority] in possession of such items shall-
  - (a) take steps to render harmless the radioactive material, device or nuclear facility;
  - (b) ensure that any nuclear material is held in accordance with the safeguards agreements [State] has entered into with the International Atomic Energy Agency;<sup>77</sup> and

<sup>74</sup> CPPNM/A, Articles 2A(3) (Fundamental Principle L), 6; Code of Conduct, Paragraph 17; ICSANT, Article 7(2).

<sup>75</sup> ICSANT, Article 7(3).

<sup>76</sup> CPPNM/A, Article 2A(1), (2)(a), (2)(c), (3); ICSANT, Article 8. Article 10 of the Treaty of Pelindaba and Article 9 of the Semipalatinsk Treaty also oblige the States Parties of the two agreements to apply physical protection measures to nuclear material and nuclear facilities, as called for in the CPPNM/A.

<sup>77</sup> I.e., The Structure and Content of Agreements between the International Atomic Energy Agency and States required in connection with the Treaty on the Non-Proliferation of Nuclear Weapons, INFCIRC/153; Model Protocol Additional to the Agreement(s) between State(s) and the International Atomic Energy Agency for the Application of Safeguards INFCIRC/540.

- (c) have regard to physical protection recommendations and health and safety standards published by the International Atomic Energy Agency, as well as those provided for under this [Act, Statute, Ordinance, etc.] and any regulations issued hereunder, and under any other law and regulations of [State].<sup>78</sup>
- (4) Upon the completion of any proceedings connected with an offence set forth in this [Act, Statute, Ordinance, etc.], the [competent authority] shall return any radioactive material, device or nuclear facility in its possession, under paragraph (3)-
- (a) to the State to which it belongs;
  - (b) to the State of which the natural or legal person owning such radioactive material, device or facility is a national or resident; or
  - (c) to the State from whose territory it was stolen or otherwise unlawfully obtained, and confirm the modalities of their return and storage with the competent authority of the other State.<sup>79 80</sup>

#### 4.2 Notifications related to incidents involving nuclear material

- (1) The [competent authority] shall be notified by [the licensee] [the manager of a nuclear facility] [a law enforcement official] within [period of time] of-
- (a) actions involving nuclear material or nuclear facilities, or other actions falling under the authority of the [competent authority], that may engender a significant risk to individuals, society or the environment; or
  - (b) loss of control over, or incidents in connection with, nuclear material.
- (2) The [competent authority] shall notify affected States through the International Atomic Energy Agency concerning any loss of control over nuclear material, or any incidents, with potential trans-boundary effects.
- (3) Specific criteria for determining when notification to the [competent authority] is required under paragraph (1) shall be provided for in the regulations issued under this [Act, Statute, Ordinance, etc.].

#### 4.3 Security of radioactive sources

- (1) The [competent authority] shall have the authority under this [Act, Statute, Ordinance, etc.] to issue regulations for the protection of individuals, society and the environment from the deleterious effects of ionizing radiation from radioactive sources.<sup>81</sup>
- (2) The [competent authority] shall have the authority under this [Act, Statute, Ordinance, etc.] to issue regulations, in order to establish policies, procedures and measures, for the control of radioactive sources.<sup>82</sup>
- (3) The [competent authority] shall establish requirements for security measures to deter, detect and delay the unauthorized access to, or the theft, loss or unauthorized use or removal of radioactive sources during all stages of management.<sup>83</sup>

78 ICSANT, Article 18(1).

79 ICSANT, Article 18(2).

80 See also ICSANT, Article 18(3)-(7) regarding those cases where the State is a State Party to ICSANT and (i) is prohibited by national or international law from returning or accepting radioactive material, devices or nuclear facilities; (ii) it is not lawful for the State to possess radioactive material, devices or nuclear facilities; or (iii) the radioactive material, devices or nuclear facilities referred to in paragraphs (3) and (4) do not belong to any of the States Parties or to a national or resident of a State Party or was not stolen or otherwise unlawfully obtained from the territory of a State Party, or if no State is willing to receive such items. These cases could be handled on a bilateral basis, not necessarily through national legislation.

81 Code of Conduct, Paragraph 19(b).

82 Code of Conduct, Paragraph 19(f).

83 Code of Conduct, Paragraph 19(g).

- (4) The [competent authority] shall have the authority to recover and restore appropriate control over orphan sources, and to deal with radiological emergencies, as provided for in the regulations issued under this [Act, Statute, Ordinance, etc.].<sup>84</sup>

#### 4.4 Notifications related to incidents involving radioactive sources

- (1) The [competent authority] shall be notified by [the licensee] [the manager of a facility involved with the management of radioactive sources] [a law enforcement official] within [period of time] of-
- (a) actions involved in the management of radioactive sources, or other actions that fall within the authority of the [competent authority], that may engender a significant risk to individuals, society or the environment;<sup>85</sup> or
- (b) loss of control over, and of incidents in connection with, radioactive sources.<sup>86</sup>
- (2) The [competent authority] shall notify affected States through the International Atomic Energy Agency concerning any loss of control over radioactive sources, or any incidents, with potential transboundary effects.<sup>87</sup>
- (3) Specific criteria for determining when notification to the [competent authority] is required under paragraph (1) shall be provided for in the regulations issued under this [Act, Statute, Ordinance, etc.].

#### 4.5 Other measures to handle nuclear and other radioactive material out of regulatory control and orphan sources

In addition to the authority provided for in Sections 4.1, 4.2, 4.3 and 4.4, the [competent authority], in co-operation with other ministries, agencies and authorities, and through regulations issued under this [Act, Statute, Ordinance, etc.],<sup>88</sup> shall take any other measures that are necessary to ensure that there is an effective nuclear security framework in place to detect, prepare for and respond to any incidents involving nuclear or other radioactive material that is out of regulatory control or any orphan sources.

## 5. Transport, import, export and transit of nuclear material and radioactive sources<sup>89</sup>

### 5.1 International nuclear transport<sup>90</sup>

- (1) Nuclear material in international nuclear transport, whether in the territory of [State], or on board a ship or aircraft under the jurisdiction of [State] insofar as such ship or aircraft is engaged in the transport to or from [State], shall-
- (a) only be transported by a person licensed to transport nuclear material under Section 3.2, paragraph (2) of this [Act, Statute, Ordinance, etc.]; and

84 Code of Conduct, Paragraph 22(o).

85 Code of Conduct, Paragraph 19(e).

86 Code of Conduct, Paragraph 22(l).

87 Code of Conduct, Paragraph 12.

88 States are encouraged to consider *Nuclear security recommendations on nuclear and other radioactive material out of regulatory control* (IAEA Nuclear Security Series No. 15) (2011).

89 States may wish to consider including in Section 5 the concept 'transfer' of nuclear material and radioactive sources, further to the practice of some States to include this term in their national legislation for domestic and international movements of nuclear material and radioactive sources.

90 CPPNM/A, Articles 2A(3) (Fundamental Principle B), 3, 4(4).

- (b) be protected at the levels<sup>91</sup> described in the regulations that are issued under this [Act, Statute, Ordinance, etc.]—
  - (i) during storage incidental to international nuclear transport; and
  - (ii) during international transport.
- (2) Nuclear material being transported from a part of [State] to another part of [State] through international waters or airspace shall be protected at the levels described in the regulations issued under this [Act, Statute, Ordinance, etc.].

## 5.2 Export of nuclear material<sup>92</sup>

- (1) Nuclear material shall only be exported by a person licensed to export nuclear material under Section 3.2, paragraph (2) of this [Act, Statute, Ordinance, etc.].
- (2) The [competent authority] shall not license the export of nuclear material, or may prevent such export, unless it has received assurances that the material will be protected during the international nuclear transport at the levels<sup>93</sup> described in the regulations issued under this [Act, Statute, Ordinance, etc.]—
  - (a) during storage incidental to international nuclear transport; and
  - (b) during international transport.

## 5.3 Import of nuclear material<sup>94</sup>

- (1) Nuclear material shall only be imported by a person licensed to import nuclear material under Section 3.2, paragraph (2) of this [Act, Statute, Ordinance, etc.].
- (2) The [competent authority] shall not license the import of nuclear material from a State not Party to the Convention on the Physical Protection of Nuclear Material, as amended, or may prevent such import, unless it has received assurances that the material will be protected during the international nuclear transport at the levels<sup>95</sup> described in the regulations issued under this [Act, Statute, Ordinance, etc.]—
  - (a) during storage incidental to international nuclear transport; and
  - (b) during international transport.

## 5.4 Transit of nuclear material<sup>96</sup>

- (1) Nuclear material shall not pass in transit through [State], whether by land or internal waterways or through its airports or seaports, between States not Party to the Convention on the Physical Protection of Nuclear Material, as amended, unless the [competent authority] has received assurances from those States that the nuclear material will be protected during international nuclear transport at the levels<sup>97</sup> described in the regulations issued under this [Act, Statute, Ordinance, etc.]—

91 CPPNM/A, Annex I.

92 CPPNM/A, Articles 2A(3) (Fundamental Principle B), 4(1).

93 CPPNM/A, Annex I.

94 CPPNM/A, Articles 2A(3) (Fundamental Principle B), 4(2).

95 CPPNM/A, Annex I.

96 CPPNM/A, Articles 2A(3) (Fundamental Principle B), 4(3), 4(5).

97 CPPNM/A, Annex I.

- (a) during storage incidental to international nuclear transport; and
- (b) during international transport.

(2) The [competent authority] shall inform those States through which nuclear material may pass in transit, whether by land or internal waterways or through their airports or seaports, if [State] is the State that has received assurances that the material will be protected during the international nuclear transport at the levels<sup>98</sup> described in the regulations issued under this [Act, Statute, Ordinance, etc.].

## 5.5 General conditions for imports and exports of Category 1 and 2 radioactive sources

The [competent authority] shall ensure that authorised imports and exports of radioactive sources, into and from [State]-

- (a) are undertaken in a manner consistent with the provisions of the Code of Conduct on the Safety and Security of Radioactive Sources, this [Act, Statute, Ordinance, etc.] and any regulations issued hereunder;<sup>99</sup> and
- (b) are conducted in a manner consistent with existing relevant international standards and the laws of [State] relating to the transport of radioactive materials.<sup>100</sup>

## 5.6 Import of Category 1 and 2 radioactive sources

- (1) Category 1 and 2 radioactive sources shall only be imported by a person licensed by the [competent authority] to import such radioactive sources under Section 3.2, paragraph (4) of this [Act, Statute, Ordinance, etc.].<sup>101</sup>
- (2) It shall be a condition for authorisation by the [competent authority] of an import of any Category 1 or 2 radioactive source(s) into [State], under paragraph (1), that the exporting State has authorized the export of such radioactive source(s).<sup>102</sup>

## 5.7 Export of Category 1 and 2 radioactive sources

- (1) Category 1 and 2 radioactive sources shall only be exported by a person licensed by the [competent authority] to export such radioactive sources under Section 3.2, paragraph (4) of this [Act, Statute, Ordinance, etc.].<sup>103</sup>
- (2) It shall be a condition for authorisation by the [competent authority] of an export of any Category 1 or 2 radioactive source(s) from [State], under paragraph (1), that-
  - (a) the importing State has authorized the import of such radioactive source(s);
  - (b) in the case of Category 1 radioactive sources, the importing State has consented to the import of such radioactive source(s); and

98 CPPNM/A, Annex I.

99 Code of Conduct, Paragraph 23.

100 Code of Conduct, Paragraph 28; Guidance, Paragraphs 9(a), 12(a), 14(c). See also "Regulations on the Safe Transport of Radioactive Material", IAEA document TS-R-1.

101 Code of Conduct, Paragraph 24; Guidance, Paragraph 13.

102 Code of Conduct, Paragraph 23. The competent authority could also consider (i) whether the recipient has been engaged in clandestine or illegal procurement of radioactive sources; (ii) whether an import or export authorization for radioactive sources has been denied to the recipient, or whether the recipient has diverted for purposes inconsistent with the Code of Conduct any import or export of radioactive sources previously authorized; or (iii) the risk of diversion of malicious acts involving radioactive sources (Guidance, Paragraph 13(c)).

103 Code of Conduct, Paragraph 25; Guidance, Paragraphs 6, 7, 10, 11.



- (c) the importing State has the appropriate technical and administrative capability, resources and regulatory structure needed to ensure that the source will be managed in a manner consistent with the provisions of the Code of Conduct on the Safety and Security of Radioactive Sources.<sup>104</sup>
- (3) The importing State shall be notified of an export of a Category 1 or 2 radioactive source, at least seven calendar days in advance of shipment, by the person licensed by the [competent authority] to export such radioactive source(s) under Section 3.2, paragraph (4) of this [Act, Statute, Ordinance, etc.].<sup>105</sup>

### **5.8 Import and export of Category 1 and 2 radioactive sources in exceptional circumstances<sup>106</sup>**

- (1) The [competent authority] may authorise an import or export of a Category 1 or 2 radioactive source in exceptional circumstances, in the event the procedures in Sections 5.6 and 5.7 cannot be followed.
- (2) In the case of an export of a Category 1 or 2 radioactive source from [State], under paragraph (1), the [competent authority] shall obtain the importing State's consent to the export.
- (3) The [competent authority] and the competent authority of the other State shall agree to alternative arrangements to ensure the safe and secure management of the radioactive source imported or exported under paragraph (1).
- (4) "Exceptional circumstances" for the purposes of this Section are-
- (a) cases of considerable health or medical need, as acknowledged by the importing State and by the exporting State;
  - (b) cases where there is an imminent radiological hazard or security threat presented by one or more radioactive sources; or
  - (c) cases in which the exporting facility or exporting State maintains control of radioactive source(s) throughout the period the source(s) are outside of the exporting State, and the exporting facility or exporting State removes the source(s) at the conclusion of this period.

### **5.9 Re-entry into [State] of disused radioactive sources<sup>107</sup>**

- (1) The [competent authority] shall allow for re-entry into the territory of [State] of disused radioactive sources if the [competent authority] had previously accepted their return to a manufacturer authorised to manage the disused sources.
- (2) The procedures for the re-entry of disused radioactive sources, under paragraph (1), shall be further provided for in the regulations issued under this [Act, Statute, Ordinance, etc.].

### **5.10 Transit and transshipment of radioactive sources through the territory of [State]<sup>108</sup>**

- (1) The [competent authority] shall ensure that the transport of radioactive sources through the territory of [State], whether in transit or transshipment, is conducted in a manner consistent with existing

.....

<sup>104</sup> Code of Conduct, Paragraph 25; Guidance, Paragraphs 6, 7, 8, 10, 11. The competent authority could also consider (i) whether the recipient has been engaged in clandestine or illegal procurement of radioactive sources; (ii) whether an import or export authorization for radioactive sources has been denied to the recipient or importing State, or whether the recipient or importing State has diverted for purposes inconsistent with the Code of Conduct any import or export of radioactive sources previously authorized; or (iii) the risk of diversion of malicious acts involving radioactive sources (Guidance, Paragraphs 7(c), 11(c)).

<sup>105</sup> Guidance, Paragraphs 9(b), 12(b).

<sup>106</sup> Code of Conduct, Paragraph 26; Guidance, Paragraphs 15 and 16.

<sup>107</sup> Code of Conduct, Paragraph 27.

<sup>108</sup> Code of Conduct, Paragraph 29.



relevant international standards relating to the transport of radioactive materials, including maintaining continuity of control during the transport.

- (2) The procedures for transit and transshipment, under paragraph (1), shall be further provided for in the regulations issued under this [Act, Statute, Ordinance, etc.].

### 5.11 Prevention of unauthorised transfer,<sup>109</sup> import, export, transit, or transport of nuclear material or radioactive sources

The [competent authority] is authorised under this [Act, Statute, Ordinance, etc.] to obtain an injunction from the appropriate judicial authority to prevent transfer, import, export, transit or transport of nuclear material or a Category 1 or 2 radioactive source, if the [competent authority] has reason to believe or suspect that the transfer, import, export, transit or transport is-

- (a) not licensed by the [competent authority]; or  
 (b) otherwise in violation of this [Act, Statute, Ordinance, etc.].<sup>110 111</sup>

## 6. Offences and penalties

### 6.1 Offences involving nuclear material

- (1) Any person<sup>112</sup> who intentionally commits an act without lawful authority which constitutes the receipt, possession, use, transfer, alteration, disposal or dispersal of nuclear material and which causes or is likely to cause death or serious injury to any person or substantial damage to property or to the environment, commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>113</sup>
- (2) Any person who intentionally commits a theft or robbery of nuclear material commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>114</sup>
- (3) Any person who intentionally embezzles or fraudulently obtains nuclear material commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>115</sup>
- (4) Any person who intentionally commits an act which constitutes the carrying, sending, or moving of nuclear material into or out of [State] without approval from the [competent authority] commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>116</sup>

109 States may wish to consider including in Section 5.11 the concept 'transfer' of nuclear material and radioactive sources, further to the practice of some States to include this term in their national legislation for domestic and international movements of nuclear material and radioactive sources.

110 The authors of this *Kit* are mindful that Section 5.11 is not derived from the international legal instruments discussed in Part II (1), but consider that States may find this additional provision useful.

111 As an additional nuclear security measure, a State may also wish to consider authorising the competent authority to obtain an injunction to prevent movements of nuclear material, specified equipment, non-nuclear material or related technology that may be in violation of the State's commitments under a Comprehensive Safeguards Agreement with the IAEA (INFCIRC/153), Additional Protocol with the IAEA (INFCIRC/540), Nuclear Suppliers Group Guidelines (INFCIRC/254/Rev.11/Part 1 and INFCIRC/254/Rev.8/Part 2) or Zangger Understandings (INFCIRC/209/Rev.2).

112 'Person' should be defined or understood under national law to include natural persons and legal entities. See, for example, Article 4 of the Beijing Convention, Article 5*bis* of SUA 2005 and Article 1, para. 1 of SUA PROT 2005. Also see the footnote in UN Security Council Resolution 1540 (S/RES/1540 (2004)): "Non-State actor: individual or entity, not acting under the lawful authority of any State in conducting activities which come within the scope of this resolution".

113 CPPNM/A, Article 7(1)(a) and (2).

114 CPPNM/A, Article 7(1)(b) and (2).

115 CPPNM/A, Article 7(1)(c) and (2).

116 CPPNM/A, Article 7(1)(d) and (2).

- (5) Any person who intentionally commits an act constituting a demand for nuclear material by threat or use of force or by any other form of intimidation commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>117</sup>

## 6.2 Offences involving nuclear facilities

- (1) Any person who intentionally commits an act directed against a nuclear facility, or an act interfering with the operation of a nuclear facility, where the offender intentionally causes, or where he knows that the act is likely to cause, death or serious injury to any person or substantial damage to property or to the environment by exposure to radiation or release of radioactive substances, commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>118</sup>
- (2) Paragraph (1) shall not apply if the act is undertaken in conformity with the law of [State].<sup>119</sup>
- (3) Any person who unlawfully and intentionally uses or damages a nuclear facility in a manner which releases or risks the release of radioactive material-
- (a) with the intent to cause death or serious bodily injury; or
  - (b) with the intent to cause substantial damage to property or to the environment; or
  - (c) with the intent to compel a natural or legal person, an international organization or a State to do or refrain from doing an act
- commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>120</sup>
- (4) Any person who demands unlawfully and intentionally a nuclear facility by threat, under circumstances which indicate the credibility of the threat, or by use of force commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>121</sup>

## 6.3 Additional offences involving radioactive material and devices

- (1) Any person who unlawfully and intentionally possesses radioactive material or makes or possesses a device-
- (a) with the intent to cause death or serious bodily injury; or
  - (b) with the intent to cause substantial damage to property or to the environment
- commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>122</sup>
- (2) Any person who unlawfully and intentionally uses in any way radioactive material or a device-
- (a) with the intent to cause death or serious bodily injury; or
  - (b) with the intent to cause substantial damage to property or to the environment; or

117 CPPNM/A, Article 7(1)(f) and (2).

118 CPPNM/A, Article 7(1)(e) and (2).

119 CPPNM/A, Article 7(1)(e).

120 ICSANT, Articles 2(1)(b) and 5.

121 ICSANT, Articles 2(2)(b) and 5.

122 ICSANT, Articles 2(1)(a) and 5.

(c) with the intent to compel a natural or legal person, an international organization or a State to do or refrain from doing an act

commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>123</sup>

- (3) Any person who demands unlawfully and intentionally radioactive material or a device by threat, under circumstances which indicate the credibility of the threat, or by use of force commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>124 125 126 127</sup>

123 ICSANT, Articles 2(1)(b) and 5.

124 ICSANT, Articles 2(2)(b) and 5.

125 States Parties to the ICSTB may also wish to consider including in Section 6.3 the following offences:

“Any person who-

(a) unlawfully and intentionally delivers, places, discharges or detonates an explosive or other lethal device in, into or against a place of public use, a [State] or government facility, a public transportation system or an infrastructure facility-

(i) with the intent to cause death or serious bodily injury; or

(ii) with the intent to cause extensive destruction of such a place, facility or system, where such destruction results in or is likely to result in major economic loss;

(b) attempts to commit an offence as set forth in (a);

(c) participates as an accomplice in an offence as set forth in (a) or (b);

(d) organises or directs others to commit an offence as set forth in (a) or (b);

(e) in any other way intentionally contributes to the commission of one or more offences as set forth in (a) or (b) by a group of persons acting with a common purpose-

(i) with the aim of furthering the criminal activity or purpose of the group; or

(ii) in the knowledge of the intention of the group to commit the offence or offences concerned

commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].”  
See ICSTB, Article 2.

‘Explosive or other lethal device’ is defined in Article 1, paragraph 3 of ICSTB as, *inter alia*:

“... (b) A weapon or device that is designed, or has the capability, to cause death, serious bodily injury or substantial material damage through the release, dissemination or impact of ... radiation or radioactive material”.

126 Pursuant to their national law and interests, States may also wish to consider including in Section 6.3 the following offences:

“Any person who-

(a) manufactures, acquires, possesses, develops, transports, transfers or uses nuclear weapons or their means of delivery, in particular for terrorist purposes;

(b) attempts to engage in any of the activities in (a);

(c) participates in the activities in (a) as an accomplice;

(d) assists in the activities in (a); or

(e) finances the activities in (a)

commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].”  
See UNSCR 1540 (2004), Operative Paragraph 2.

Those States which are, for the purposes of the NPT, non-nuclear-weapon States, and which are States Parties to either the Treaty of Rarotonga, Treaty of Bangkok or Treaty of Pelindaba, may also wish to consider:

“Any person who-

(a) develops, manufactures, acquires, stockpiles, possesses or has control over any nuclear explosive device; or

(b) stations or transports any nuclear explosive device by any means

commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].”  
See Treaty of Rarotonga (Article 3); Treaty of Bangkok (Article 3); Treaty of Pelindaba (Articles 3-5).

127 States which have signed the CTBT (or that ratify/accede to it after entry into force) may wish to also consider:

“Any person who -

(a) carries out a nuclear weapon test explosion or any other nuclear explosion; or

(b) causes, encourages or in any way participates in the carrying out of a nuclear weapon test explosion or any other nuclear explosion

commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].”  
See CTBT, Articles I, III (1).

## 6.4 Offences specific to aircraft

- (1) Any person<sup>128</sup> who unlawfully and intentionally releases or discharges from an aircraft in service any nuclear weapon or other nuclear explosive device or explosive, radioactive, or similar substances in a manner that causes or is likely to cause death, serious bodily injury or serious damage to property or the environment commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>129</sup>
- (2) Any person who unlawfully and intentionally uses against or on board an aircraft in service any nuclear weapon or other nuclear explosive device or explosive, radioactive, or similar substances in a manner that causes or is likely to cause death, serious bodily injury or serious damage to property or the environment commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>130</sup>
- (3) Any person who unlawfully and intentionally transports, causes to be transported, or facilitates the transport of, on board an aircraft-
  - (a) any explosive or radioactive material, knowing that it is intended to be used to cause, or in a threat to cause, death or serious injury or damage for the purpose of intimidating a population, or compelling a government or an international organization to do or to abstain from doing any act;
  - (b) any nuclear weapon or other nuclear explosive device, knowing it to be a nuclear weapon or other nuclear explosive device;
  - (c) any source material,<sup>131</sup> special fissionable material,<sup>132</sup> or equipment or material especially designed or prepared for the processing, use or production of special fissionable material, knowing that it is intended to be used in a nuclear explosive activity or in any other nuclear activity not under safeguards pursuant to a safeguards agreement with the International Atomic Energy Agency; or
  - (d) any equipment, materials or software or related technology that significantly contributes to the design, manufacture or delivery of a nuclear weapon or other nuclear explosive device without lawful authorization and with the intention that it will be used for such purpose

commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>133</sup>
- (4) Transport of items and materials under subparagraphs (3)(c) and (d) shall not be an offence if authorized by the [competent authority] and if the transport of such items or materials is consistent with or is for a use or activity that is consistent with [State's] rights, responsibilities and obligations under the Treaty on the Non-Proliferation of Nuclear Weapons (NPT).<sup>134</sup>
- (5) Any person who unlawfully and intentionally assists another person to evade investigation, prosecution or punishment, knowing that-

128 Article 4 of the Beijing Convention encourages States Parties to establish liability for legal entities. Accordingly, the concept of 'person' should be defined or understood under national law to include natural and legal persons.

129 Beijing Convention, Articles 1(1)(g) and 3. The provisions in the Convention prohibit the release or discharge of a 'BCN weapon' as defined in Article 2(h) of the Convention, thus covering nuclear as well as biological and chemical weapons.

130 Beijing Convention, Articles 1(1)(h) and 3. The provisions in the Convention prohibit the use of a 'BCN weapon' as defined in Article 2(h) of the Convention, thus covering nuclear as well as biological and chemical weapons.

131 The Beijing Convention, Article 2(j), makes reference to the meaning of 'source material' in Article XX (3) of the 1956 Statute of the International Atomic Energy Agency.

132 The Beijing Convention, Article 2(j), makes reference to the meaning of 'special fissionable material' in Article XX (1) of the 1956 Statute of the International Atomic Energy Agency.

133 Beijing Convention, Articles 1(1)(i) and 3. The provisions in the Convention prohibit the transport of a 'BCN weapon' as defined in Article 2(h) of the Convention, thus covering nuclear as well as biological and chemical weapons.

134 Beijing Convention, Article 1(1)(i).

- (a) the person has committed an act that constitutes an offence set forth in paragraphs (1), (2) and (3) of this Section and Sections 6.8, paragraph (3); 6.9; 6.10; and 6.11; or
- (b) the person is wanted for criminal prosecution by law enforcement authorities for such an offence or has been sentenced for such an offence

commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>135</sup>

- (6) Any person who intentionally agrees with one or more other persons to commit an offence set forth in paragraphs (1), (2) and (3) of this Section and Section 6.8, paragraph (3) commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>136</sup>

## 6.5 Offences specific to ships

- (1) Any person<sup>137</sup> who unlawfully and intentionally uses against or on a ship or discharges from a ship any explosive, radioactive material or nuclear weapon or other nuclear explosive device in a manner that causes or is likely to cause death or serious injury or damage, when the purpose of the act, by its nature or context, is to intimidate a population, or to compel a government or an international organization to do or to abstain from doing any act, commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>138</sup>
- (2) Any person who unlawfully and intentionally transports on board a ship-
  - (a) any explosive or radioactive material, knowing that it is intended to be used to cause, or in a threat to cause, with or without a condition, death or serious injury or damage for the purpose of intimidating a population, or compelling a government or an international organization to do or to abstain from doing any act;
  - (b) any weapon or other nuclear explosive device, knowing it to be a nuclear weapon or other nuclear explosive device;
  - (c) any source material,<sup>139</sup> special fissionable material,<sup>140</sup> or equipment or material especially designed or prepared for the processing, use or production of special fissionable material, knowing that it is intended to be used in a nuclear explosive activity or in any other nuclear activity not under safeguards pursuant to a comprehensive safeguards agreement with the International Atomic Energy Agency; or
  - (d) any equipment, materials or software or related technology that significantly contributes to the design, manufacture or delivery of a nuclear weapon or other nuclear explosive device, with the intention that it will be used for such purpose,

commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>141</sup>

<sup>135</sup> Beijing Convention, Articles 1(4)(d) and 3.

<sup>136</sup> Beijing Convention, Articles 1(5)(a) and 3.

<sup>137</sup> Article 5bis of SUA 2005 requires States Parties to establish liability for legal entities. Accordingly, the concept of 'person' should be defined or understood under national law to include natural and legal persons.

<sup>138</sup> SUA 2005, Articles 3bis(1)(a)(i) and 5. The provisions in the Convention prohibit the use or discharge of a 'BCN weapon' as defined in Article 1(1)(d) of the Convention, thus covering nuclear as well as biological and chemical weapons.

<sup>139</sup> SUA 2005, Article 1(2)(b), makes reference to the meaning of 'source material' in Article XX (3) of the 1956 Statute of the International Atomic Energy Agency.

<sup>140</sup> SUA 2005, Article 1(2)(b), makes reference to the meaning of 'special fissionable material' in Article XX (1) of the 1956 Statute of the International Atomic Energy Agency.

<sup>141</sup> SUA 2005, Articles 3bis(1)(b) and 5. The provisions in the Convention prohibit the transport of a 'BCN weapon' as defined in Article 1(1)(d) of the Convention, thus covering nuclear as well as biological and chemical weapons.

- (3) Transport of an item or material covered by paragraph (2)(c) or, insofar as it relates to a nuclear weapon or other nuclear explosive device, paragraph (2)(d), shall not be an offence if-
- (a) such transport is authorized by the [competent authority]; and
  - (b) such item or material is transported to or from the territory of, or is otherwise transported under the control of, a State Party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) where-
    - (i) the resulting transfer or receipt, including internal to [State], of the item or material is not contrary to [State's] obligations under the Treaty on the Non-Proliferation of Nuclear Weapons (NPT); and
    - (ii) if the item or material is intended for the delivery system of a nuclear weapon or other nuclear explosive device of a State Party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the holding of such weapon or device is not contrary to that State Party's obligations under that Treaty.<sup>142</sup>
- (4) Any person who unlawfully and intentionally transports another person on board a ship knowing that the person has committed an act that constitutes-
- (a) an offence set forth in paragraphs (1), (2) and (5) of this Section and Sections 6.8, paragraph (4); 6.9; 6.10; 6.11; and 6.12; or
  - (b) an offence set forth in the 1980 Convention on the Physical Protection of Nuclear Material,<sup>143</sup> and intending to assist that person to evade criminal prosecution, commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>144</sup>
- (5) Any person who unlawfully and intentionally injures or kills any person in connection with the commission of any of the offences set forth in paragraphs (1), (2) and (4) of this Section and Section 6.8, paragraph (4) commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>145</sup>

## 6.6 Offences specific to fixed platforms

- (1) Any person who unlawfully and intentionally uses against or on a fixed platform or discharges from a fixed platform any explosive, radioactive material or nuclear weapon or other nuclear explosive device in a manner that causes or is likely to cause death or serious injury or damage, when the purpose of the act, by its nature or context, is to intimidate a population, or to compel a government or an international organization to do or to abstain from doing any act, commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>146</sup>
- (2) Any person who unlawfully and intentionally injures or kills any person in connection with the commission of any of the offences set forth in paragraph (1) of this Section or Section 6.8, paragraph (4) commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>147</sup>

142 SUA 2005, Article 3*bis*(2).

143 Article 3*ter* of SUA 2005 makes reference to the Annex to the Convention, which lists nine treaties. The Annex does not include ICSANT or the 2005 Amendment to the CPPNM.

144 SUA 2005, Articles 3*ter* and 5.

145 SUA 2005, Articles 3*quater*(a) and 5.

146 SUA PROT 2005, Articles 1, para. 1 and 2*bis*(a). The provisions in the Protocol prohibit the use of a 'BCN weapon' as defined in Article 1(1)(d) of SUA 2005, thus covering nuclear as well as biological and chemical weapons.

147 SUA PROT 2005, Articles 1, para. 1 and 2*ter*(a).

## 6.7 Offences related to computer security

- (1) Any person who, in relation to nuclear facilities or facilities involved in the management of radioactive sources, unlawfully and intentionally-
  - (a) commits information-gathering attacks aimed at planning and executing further malicious acts;
  - (b) commits attacks disabling or compromising the attributes of one or several computers crucial to facility security or safety; or
  - (c) compromises one or several computers combined with other concurrent modes of attack, such as physical intrusion to target locations
 commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>148</sup>
- (2) Any person who, in relation to nuclear facilities or facilities involved in the management of radioactive sources, unlawfully and intentionally commits a theft of sensitive or confidential information, commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].

## 6.8 Threats<sup>149</sup>

- (1) Any person who intentionally threatens-
  - (a) to use nuclear material to cause death or serious injury to any person or substantial damage to property or to the environment or to commit the offence described in Section 6.2, paragraph (1); or
  - (b) to commit an offence described in Sections 6.1, paragraph (2) and 6.2, paragraph (1) in order to compel a natural or legal person, international organization or [State] to do or to refrain from doing any act
 commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>150</sup>
- (2) Any person who threatens, under circumstances which indicate the credibility of the threat, to commit an offence as set forth in Sections 6.2, paragraph (3) and 6.3, paragraph (2) commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>151</sup>
- (3) Any person who-
  - (a) makes a threat to commit any of the offences in Section 6.4, paragraphs (1) and (2); or
  - (b) unlawfully and intentionally causes any person to receive such a threat, under circumstances which indicate that the threat is credible
 commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>152</sup>
- (4) Any person who unlawfully and intentionally threatens to commit the offence in Sections 6.5, paragraph (1) or 6.6, paragraph (1), with or without condition, when the purpose of the act, by its nature or context, is to intimidate a population, or to compel a government or an international organization

<sup>148</sup> *Computer Security at Nuclear Facilities* (IAEA Nuclear Series No. 17) (2011), p. 2.

<sup>149</sup> States may wish to consider existing provisions on threats to commit a criminal offence in their national criminal legislation.

<sup>150</sup> CPPNM/A, Article 7(1)(g) and (2).

<sup>151</sup> ICSANT, Articles 2(2)(a) and 5.

<sup>152</sup> Beijing Convention, Articles 1(3) and 3.



to do or to abstain from doing any act, commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>153</sup>

- (5) Any person who intentionally threatens to commit an offence described in Section 6.7 commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].

### 6.9 Attempts<sup>154</sup>

Any person who attempts to commit any offence described in Sections 6.1, paragraphs (1), (2), (3) and (4); 6.2, paragraphs (1) and (3); 6.3, paragraphs (1) and (2); 6.4, paragraphs (1), (2) and (3); 6.5, paragraphs (1) and (5); 6.6 and 6.7 commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>155</sup>

### 6.10 Participation<sup>156</sup>

Any person who intentionally commits an act which constitutes participation or who participates as an accomplice in any offence described in Sections 6.1; 6.2, paragraphs (1), (3) and (4); 6.3; 6.4, paragraphs (1), (2) and (3); 6.5, paragraphs (1), (2), (4) and (5); 6.6; 6.7; 6.8 and 6.9 commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>157</sup>

### 6.11 Organising or directing others<sup>158</sup>

Any person who intentionally organises or directs others to commit an offence described in Sections 6.1; 6.2, paragraphs (1), (3) and (4); 6.3; 6.4, paragraphs (1), (2) and (3); 6.5, paragraphs (1), (2), (4) and (5); 6.6; 6.7; 6.8; and 6.9 commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>159</sup>

### 6.12 Contributing to the commission of an act<sup>160</sup>

Any person who intentionally commits an act which contributes to the commission of any offence described in Sections 6.1; 6.2, paragraphs (1), (3) and (4); 6.3; 6.4, paragraphs (1), (2) and (3); 6.5, paragraphs (1), (2), (4) and (5); 6.6; 6.7; 6.8; and 6.9 by a group of persons acting with a common purpose-

- (a) with the aim of furthering the criminal activity or criminal purpose of the group; or  
 (b) in the knowledge of the intention of the group to commit the offence or offences concerned commits an offence and shall be punished upon conviction to imprisonment for a term not exceeding [period] [and/or] a fine not exceeding [amount].<sup>161</sup>

153 SUA 2005, Articles 3bis(1)(a)(iv) and 5; SUA PROT 2005, Articles 1, para. 1 and 2bis(c).

154 States may wish to consider existing provisions on attempts to commit a criminal offence in their national criminal legislation.

155 CPPNM/A, Article 7(1)(h) and (2); ICSANT, Articles 2(3) and 5; Beijing Convention, Articles 1(4)(a) and 3; SUA 2005, Articles 3quater(b) and 5; SUA PROT 2005, Articles 1, para. 1 and 2ter(b).

156 States may wish to consider existing provisions on participation in a criminal offence in their national criminal legislation.

157 CPPNM/A, Article 7(1)(i) and (2); ICSANT, Articles 2(4)(a) and 5; Beijing Convention, Articles 1(4)(c) and 3; SUA 2005, Articles 3quater(c) and 5; SUA PROT 2005, Articles 1, para. 1 and 2ter(c).

158 States may wish to consider existing provisions on organising or directing others to commit a criminal offence in their national criminal legislation.

159 CPPNM/A, Article 7(1)(j) and (2); ICSANT, Articles 2(4)(b) and 5; Beijing Convention, Articles 1(4)(b) and 3; SUA 2005, Articles 3quater(d) and 5; SUA PROT 2005, Articles 1, para. 1 and 2ter(d).

160 States may wish to consider existing provisions on contributing to the commission of a criminal offence in their national criminal legislation.

161 CPPNM/A, Article 7(1)(k) and (2); ICSANT, Articles 2(4)(c) and 5; Beijing Convention, Articles 1(5)(b) and 3; SUA 2005, Articles 3quater(e) and 5; SUA PROT 2005, Articles 1, para. 1 and 2ter(e).



### 7.1 Jurisdiction over offences committed in the territory of the State or on board a ship or aircraft registered in the State

[State] shall have jurisdiction over offences committed under this [Act, Statute, Ordinance, etc.] when the offence is committed in the territory of [State] or on board a ship or aircraft registered in [State].<sup>163</sup>

### 7.2 Jurisdiction over offences committed by nationals

[State] shall have jurisdiction over offences established under this [Act, Statute, Ordinance, etc.] when the alleged offender is a national of [State] regardless of where the conduct occurred.<sup>164</sup>

### 7.3 Jurisdiction over offences committed against nationals

[State] shall have jurisdiction over offences committed under this [Act, Statute, Ordinance, etc.] when the offence is committed against a national of [State].<sup>165</sup>

### 7.4 Jurisdiction over offences committed against a [State] or government facility of [State] abroad

[State] shall have jurisdiction over offences committed under this [Act, Statute, Ordinance, etc.] when the offence is committed against a [State] or government facility of [State] abroad, including an embassy or other diplomatic or consular premises of [State].<sup>166</sup>

### 7.5 Jurisdiction over offences committed by stateless persons

[State] shall have jurisdiction over offences committed under this [Act, Statute, Ordinance, etc.] when the alleged offender is a stateless person who has his or her habitual residence in the territory of [State].<sup>167</sup>

### 7.6 Jurisdiction over offences committed in an attempt to compel [State] to act or not act

[State] shall have jurisdiction over offences committed under this [Act, Statute, Ordinance, etc.] when the offence is committed in an attempt to compel [State] to do or abstain from doing any act.<sup>168</sup>

162 Section 7 of this Model Law includes eleven bases for a State to exercise jurisdiction over the offences in Section 6. These provisions are derived from the international legal instruments discussed in Part II (1) of this *Kit*. Mandatory or optional exercise of jurisdiction under an international legal instrument is indicated in a footnote. In addition, a State may choose not to exercise jurisdiction on one or more of these bases if it is not a State Party to the relevant international legal instrument(s).

163 This exercise of jurisdiction is mandatory under CPPNM/A, Article 8(1)(a); ICSANT, Article 9(1)(a)-(b); Beijing Convention, Article 8(1)(a)-(b); SUA 2005, Article 6(1)(a)-(b).

164 This exercise of jurisdiction is mandatory under CPPNM/A, Article 8(1)(b); ICSANT, Article 9(1)(c); Beijing Convention, Article 8(1)(e); SUA 2005, Article 6(1)(c); SUA PROT 2005, Article 3(1)(b).

165 This exercise of jurisdiction is optional under ICSANT, Article 9(2)(a); Beijing Convention, Article 8(2)(a); SUA 2005, Article 6(2)(b); SUA PROT 2005, Article 3(2)(b).

166 This exercise of jurisdiction is optional under ICSANT, Article 9(2)(b).

167 This exercise of jurisdiction is optional under ICSANT, Article 9(2)(c); Beijing Convention, Article 8(2)(b); SUA 2005, Article 6(2)(a); SUA PROT 2005, Article 3(2)(a).

168 This exercise of jurisdiction is optional under ICSANT, Article 9(2)(d); SUA 2005, Article 6(2)(c); SUA PROT 2005, Article 3(2)(c).

## 7.7 Jurisdiction over offences committed on board aircraft operated by the Government of [State]

[State] shall have jurisdiction over offences committed under this [Act, Statute, Ordinance, etc.] when the offence is committed on board an aircraft which is operated by the Government of [State].<sup>169</sup>

## 7.8 Jurisdiction when the alleged offender is not extradited

[State] shall have jurisdiction over offences committed under this [Act, Statute, Ordinance, etc.] when the alleged offender is present in the territory of [State] and is not extradited to another State.<sup>170</sup>

## 7.9 Jurisdiction when the State is involved in international nuclear transport

[State] shall have jurisdiction over offences committed under this [Act, Statute, Ordinance, etc.] when [State] is involved in international nuclear transport as the exporting or importing State.<sup>171</sup>

## 7.10 Jurisdiction specific to offences involving aircraft

- (1) [State] shall have jurisdiction over offences committed under this [Act, Statute, Ordinance, etc.] when the aircraft on board which the offence is committed lands in the territory of [State] with the alleged offender still on board.<sup>172</sup>
- (2) [State] shall have jurisdiction over offences committed under this [Act, Statute, Ordinance, etc.] when the offence is committed against or on board an aircraft leased without crew to a lessee whose principal place of business or, if the lessee has no such place of business, whose permanent residence is in [State].<sup>173</sup>

## 7.11 Jurisdiction specific to offences involving fixed platforms

[State] shall have jurisdiction over offences committed under this [Act, Statute, Ordinance, etc.] when the offence is committed against or on board a fixed platform while it is located on the continental shelf of [State].<sup>174</sup>

# 8. Criminal proceedings and international co-operation

## 8.1 Investigations and enquiries, prosecution and extradition

- (1) If the [appropriate authority<sup>175</sup>] receives information that an offence under this [Act, Statute, Ordinance, etc.] has been committed or is being committed in the territory of [State] or that a person who has committed or who is alleged to have committed such an offence may be present in [State], the

169 This exercise of jurisdiction is optional under ICSANT, Article 9(2)(e).

170 This exercise of jurisdiction is mandatory under CPPNM/A, Article 8(2); ICSANT, Article 9(4); Beijing Convention, Article 8(3); SUA 2005, Article 4; SUA PROT 2005, Article 3(4).

171 This exercise of jurisdiction is optional under CPPNM/A, Article 8(4).

172 This exercise of jurisdiction is mandatory under the Beijing Convention, Article 8(1)(c).

173 This exercise of jurisdiction is mandatory under the Beijing Convention, Article 8(1)(d).

174 This exercise of jurisdiction is mandatory under SUA PROT 2005, Article 3(1)(a).

175 E.g., the police.

[appropriate authority] shall investigate the facts contained in the information, in accordance with national law and the [code of criminal procedure of [State]].<sup>176</sup> The [appropriate authority] is authorised under this [Act, Statute, Ordinance, etc.] to apply nuclear forensics to an investigation under this Section.

- (2) The [competent authority] shall inform relevant States of the findings of any investigations or preliminary enquiries conducted under paragraph (1) and indicate whether [State] intends to exercise jurisdiction over an offence committed under this [Act, Statute, Ordinance, etc.].<sup>177</sup>
- (3) The [appropriate authority]<sup>178</sup> shall take appropriate measures, including detention, to ensure the presence of any person who is alleged to have violated this [Act, Statute, Ordinance, etc.] for the purpose of prosecution or extradition.<sup>179</sup>
- (4) The [appropriate authorities]<sup>180</sup> shall ensure that any person regarding whom the measures in paragraph (3) are being taken, and who is not a national of [State], is entitled-
  - (a) to communicate without delay with the nearest appropriate representative of the State of which that person is a national or which is otherwise entitled to protect that person's rights or, if that person is a stateless person, the State in the territory of which that person habitually resides;<sup>181</sup>
  - (b) to be visited by a representative of that State;<sup>182</sup> and
  - (c) to be informed of that person's rights under subparagraphs (a) and (b).<sup>183</sup>
- (5) The [competent authority] shall immediately inform relevant States, directly [or through the Secretary-General of the United Nations<sup>184</sup>], of the fact that a person is in custody, under paragraph (3), and of the circumstances which warrant that person's detention.<sup>185</sup>
- (6) In the event the person who is alleged to have violated this [Act, Statute, Ordinance, etc.] is not extradited, his case shall be referred to the [appropriate authority]<sup>186</sup> for the purpose of prosecution in accordance with the [code of criminal procedure] of [State]].<sup>187</sup>
- (7) The [competent authority] shall communicate the final outcome of any legal proceedings related to an offence committed under this [Act, Statute, Ordinance, etc.] to the [Secretary-General of the United Nations<sup>188</sup>] [Council of the International Civil Aviation Organization<sup>189</sup>] [Secretary-General of the International Maritime Organization (IMO)<sup>190</sup>].

176 ICSANT, Article 10(1). The appropriate authority, e.g., the police and/or prosecutor, may receive this information from and co-operate with the competent authority responsible for enforcement of this law. Also see the Beijing Convention, Article 9(2); SUA 2005, Article 7(2); and SUA PROT 2005, Article 1, para. 1 ["preliminary enquiry into the facts"].

177 ICSANT, Article 10(6); Beijing Convention, Article 9(4); SUA 2005, Article 7(5); SUA PROT 2005, Article 1, para. 1.

178 E.g., the police.

179 CPPNM/A, Article 9; ICSANT, Article 10(2); Beijing Convention, Article 9(1); SUA 2005, Article 7(1); SUA PROT 2005, Article 1, para. 1.

180 E.g., the police, the prosecutor.

181 ICSANT, Article 10(3)(a); Beijing Convention, Article 9(3); SUA 2005, Article 7(3)(a); SUA PROT 2005, Article 1, para. 1.

182 ICSANT, Article 10(3)(b); SUA 2005, Article 7(3)(b); SUA PROT 2005, Article 1, para. 1.

183 ICSANT, Article 10(3)(c).

184 ICSANT, Article 10(6).

185 ICSANT, Article 10(6); Beijing Convention, Article 9(4); SUA 2005, Article 7(5); SUA PROT 2005, Article 1, para. 1.

186 E.g., the prosecutor.

187 CPPNM/A, Article 10; ICSANT, Article 11(1); Beijing Convention, Article 10; SUA 2005, Article 10(1); SUA PROT 2005, Article 1, para. 1.

188 ICSANT, Article 19.

189 Beijing Convention, Article 19(c).

190 SUA 2005, Article 15(1)(c) and (2); SUA PROT 2005, Article 1, para. 1.

- (8) The offences in this [Act, Statute, Ordinance, etc.] shall be deemed to be included as extraditable offences in any existing extradition treaty with another State.<sup>191</sup> In the event [State] receives a request for extradition from a State with which it does not have an existing extradition treaty [ . . . ].<sup>192</sup>

## 8.2 Fair treatment

The relevant authorities of [State] shall treat any person who is alleged to have violated this [Act, Statute, Ordinance, etc.] fairly at all stages of proceedings being carried out in connection with any of the offences set forth in this [Act, Statute, Ordinance, etc.], in accordance with national law and the [code of criminal procedure of [State]] and applicable provisions of international law.<sup>193</sup>

## 8.3 Mutual legal assistance<sup>194</sup> and other forms of international co-operation

- (1) The [appropriate authorities<sup>195</sup>] shall provide mutual legal assistance to other States in connection with investigations or criminal or extradition proceedings brought in respect of any offences set forth in this [Act, Statute, Ordinance, etc.], including the supply of evidence at the disposal of [State] necessary for the proceedings.<sup>196</sup> Such mutual assistance shall be consistent with [State's] international treaty obligations and with the national laws of [State].
- (2) The [appropriate authorities, including the competent authority,] are authorised under this [Act, Statute, Ordinance, etc.] to co-operate with other States to prevent and counter preparations for the commission of the offences set forth in this [Act, Statute, Ordinance, etc.], including taking measures to prohibit in the territory of [State] and other States illegal activities of persons, groups and organizations that encourage, instigate, organize, knowingly finance or knowingly provide technical assistance or information or engage in the perpetration of those offences.<sup>197</sup>
- (3) The [appropriate authorities, including the competent authority,] shall under this [Act, Statute, Ordinance, etc.]-
- (a) exchange accurate and verified information with other States, and co-ordinate administrative and other measures taken as appropriate to detect, prevent, suppress and investigate the offences set forth in in this [Act, Statute, Ordinance, etc.] and also in order to institute criminal proceedings against persons alleged to have committed those crimes; and
  - (b) inform without delay other relevant State(s) of the commission of the offences set forth in this [Act, Statute, Ordinance, etc.] as well as preparations to commit such offences about which it has learned, and also to inform, where appropriate, international organizations.<sup>198</sup>

191 CPPNM/A, Article 11(1); ICSANT, Article 13(1); Beijing Convention, Article 12(1); SUA 2005, Article 11(1); SUA PROT 2005, Article 1, para. 1.

192 Here, the State could consider the international instruments to which it is a party as the legal basis for extradition in respect of the offences, subject to national law (CPPNM/A, Article 11(2); ICSANT, Article 13(2); Beijing Convention, Article 12(2); SUA 2005, Article 11(2); SUA PROT 2005, Article 1, para. 1). Alternatively, the State could recognize the offences as extraditable offences between itself and the other State (CPPNM/A, Article 11(3); ICSANT, Article 13(3); Beijing Convention, Article 12(3); SUA 2005, Article 11(3); SUA PROT 2005, Article 1, para. 1).

193 CPPNM/A, Article 12; ICSANT, Article 12; Beijing Convention, Article 11; SUA 2005, Article 10(2); SUA PROT 2005, Article 1, para. 1.

194 States may also wish to consider: (i) entering into a treaty agreement on Mutual Assistance in Criminal Matters or (ii) incorporating elements of the Model Treaty on Mutual Assistance in Criminal Matters into their nuclear security legislation. The Model Treaty was adopted by General Assembly resolution 45/117 (1990) and subsequently amended by General Assembly resolution 53/112 (1998).

195 E.g., the police, the prosecutor.

196 CPPNM/A, Article 13; ICSANT, Article 14(1); Beijing Convention, Article 17(1); SUA 2005, Article 12(1); SUA PROT 2005, Article 1, para. 1. See also ICSANT, Article 17; SUA 2005, Article 12*bis*; and SUA PROT 2005, Article 1, para. 1.

197 ICSANT, Article 7(1)(a); Beijing Convention, Article 16(1); SUA 2005, Articles 8*bis*(1) and 13(1)(a) [see also Section 8.6, paragraph (4)]; SUA PROT 2005, Article 1, para. 1.

198 ICSANT, Article 7(1)(b); Beijing Convention, Articles 18 and 19(a); SUA 2005, Articles 13(1)(b), 14 and 15(1)(a); SUA PROT 2005, Article 1, para. 1.

- (4) The [competent authority] is authorised under this [Act, Statute, Ordinance, etc.] to co-operate with and assist any State that so requests in the recovery and protection of nuclear material, in the case of theft, robbery or any other unlawful taking of nuclear material or credible threat thereof.<sup>199</sup>
- (5) The [competent authority] is authorised under this [Act, Statute, Ordinance, etc.] to co-operate with and assist any State in the case of a credible threat of sabotage of nuclear material or a nuclear facility or in the case of sabotage thereof.<sup>200</sup>
- (6) The [competent authority] is authorised under this [Act, Statute, Ordinance, etc.] to inform and exchange information with the International Atomic Energy Agency and other relevant international organisations further to paragraphs (4) and (5).<sup>201</sup>

#### 8.4 Political and other justifications; political offences

- (1) For the purposes of enforcement of this [Act, Statute, Ordinance, etc.], no offence committed under this [Act, Statute, Ordinance, etc.], in particular where it is intended or calculated to provoke a state of terror in the general public or in a group of persons or particular persons, shall under any circumstances be justifiable by considerations of a political, philosophical, ideological, racial, ethnic, religious or other similar nature.<sup>202</sup>
- (2) A request for extradition under Section 8.1, paragraph (8) or for mutual legal assistance under Section 8.3, paragraph (1), based on any of the offences in this [Act, Statute, Ordinance, etc.], shall not be refused on the sole ground that it concerns a political offence or an offence connected with a political offence or an offence inspired by political motives.<sup>203</sup>

#### 8.5 Application of this [Act, Statute, Ordinance, etc.] to the armed forces and military forces of [State]

- (1) This [Act, Statute, Ordinance, etc.] shall not apply to-
- (a) the activities of the armed forces of [State] during an armed conflict, as those terms are understood under international humanitarian law, which are governed by that law and related national law; or
  - (b) the activities undertaken by the military forces of [State] in the exercise of their official duties, inasmuch as they are governed by other rules of international or national law.<sup>204</sup>
- (2) No provision in this [Act, Statute, Ordinance, etc.], including paragraph (1) above, shall be-
- (a) construed as a lawful authorisation to use or threaten to use force against nuclear material or nuclear facilities used for peaceful purposes;<sup>205</sup> or
  - (b) interpreted as condoning or making lawful otherwise unlawful acts, or precluding prosecution under this or other laws.<sup>206</sup>

199 CPPNM/A, Article 5(2).

200 CPPNM/A, Article 5(3).

201 CPPNM/A, Article 5(2)-(3).

202 ICSANT, Article 6.

203 CPPNM/A, Article 11A; ICSANT, Article 15; Beijing Convention, Article 13; SUA 2005, Article 11*bis*; SUA PROT 2005, Article 1, para. 1.

204 CPPNM/A, Article 2(4)(b); ICSANT, Article 4(2); Beijing Convention, Article 6(2); SUA 2005, Article 2*bis*(2); SUA PROT 2005, Article 1, para. 1.

205 CPPNM/A, Article 2(4)(c).

206 CPPNM/A, Article 2(4)d); ICSANT, Article 4(3); Beijing Convention, Article 6(3).

## 8.6 Enforcement measures specific to offences involving ships

- (1) The master of a ship, registered in [State], is authorised under this [Act, Statute, Ordinance, etc.] to deliver to the authorities of any State, which is party to the 1988 Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (as amended by the 2005 Protocol), any person whom the master has reasonable grounds to believe has committed an offence set forth in Sections 6.5; 6.8, paragraph (4); 6.9; 6.10; 6.11; or 6.12.<sup>207</sup>
- (2) The [appropriate authority, in co-operation with the competent authority] shall ensure that the master of a ship registered in [State] is obliged, whenever practicable, and if possible before entering the territorial sea of the receiving State carrying on board any person whom the master intends to deliver in accordance with paragraph (1), to give notification to the authorities of the receiving State of his intention to deliver such person and the reasons therefor.<sup>208</sup>
- (3) The master of a ship registered in [State] shall furnish the authorities of the receiving State with the evidence in the master's possession which pertains to the alleged offence in paragraph (1).<sup>209</sup>
- (4) The [competent authority, in co-operation with the appropriate authorities<sup>210</sup>] shall establish standard operating procedures for joint operations with other States, to prevent and suppress unlawful acts under the 1988 Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (as amended by the 2005 Protocol), through the regulations issued under this [Act, Statute, Ordinance, etc.].<sup>211</sup>

---

<sup>207</sup> SUA 2005, Article 8(1).

<sup>208</sup> SUA 2005, Article 8(2). Also see Article 8(3) and (5).

<sup>209</sup> SUA 2005, Article 8(4).

<sup>210</sup> E.g., the coast guard or other authority responsible for maritime navigation. See also SUA 2005, Article 8*bis*(14).

<sup>211</sup> SUA 2005, Article 8*bis*(12).

It is recognized that sovereign States have their own procedures for legislative development, consistent with their own legal system, structures and practices based on their social, political, economic and cultural values. However, the technical aspects of nuclear security pose unique issues and, as discussed elsewhere, a national law on nuclear security will need to comply with a range of international instruments and guidance documents. A harmonized and consistent approach with international practice will be important for securing assistance and co-operation in addressing nuclear security issues and for combating nuclear security threats, including terrorism. Therefore, a well-ordered process for developing national legislation in this field can enhance and expedite this complex task.

The following sections briefly outline key issues or procedures that have been found useful in developing national nuclear security legislation.<sup>212</sup>

### 1. Assessment of a national nuclear programme

A fundamental aspect of drafting nuclear security legislation is an accurate assessment of current and reasonably foreseen nuclear activities to be conducted in the State. If only limited activities (such as use of radioactive sources in medicine, industry and agriculture) are contemplated, the scope of a law on nuclear security can be much narrower than for an ambitious programme for nuclear power. Well before initial drafting of legislation, a survey of the State's current and expected future nuclear programme should be conducted with participation by all relevant governmental bodies and selected stakeholders (particularly expected users and licensees). Some of the elements that should be considered in the assessment include:

- ★ government policy on nuclear energy;
- ★ current programmes for using nuclear and other radioactive material and related technology;
- ★ future plans and schedules for nuclear development (including decommissioning and waste management);
- ★ financial aspects of nuclear development (including public funding and/or incentives);
- ★ role of private entities;
- ★ role of foreign suppliers and technical assistance;
- ★ technical and industrial infrastructure requirements; and
- ★ educational needs for specialists (including in security aspects).

### 2. Assessment of a national legal and regulatory framework

In parallel with the assessment of the State's current and foreseen nuclear programme, an assessment of the existing legal and regulatory framework should be conducted.<sup>213</sup> Failure to ensure consistency between

212 Part IV of this *Kit* is a condensed version of the article "Developing National Legislation for Nuclear Security: Priority Issues and Basic Approaches", Carlton Stoiber, *1540 Compass*, Volume 1, Issue 2, CITS, University of Georgia, Athens, 2012 (reproduced here with the kind permission of the author).

213 VERTIC's National Implementation Measures (NIM) Programme is engaged in a multi-year nuclear security legislation project, which includes reviewing and analysing States' existing legal and regulatory frameworks for the implementation of certain international instruments related to nuclear security. Such legislation surveys can be prepared at the request of interested governments. See further [www.vertic.org](http://www.vertic.org) > Programmes >>NIM.



a law on nuclear security and other relevant legislation can result in problems in implementation. Many different laws and regulatory arrangements in a State will be relevant to implementing a nuclear programme. The following examples are the most relevant:

- ★ general administrative law;
- ★ national criminal law or criminal code;
- ★ civil and criminal enforcement laws and procedures including criminal procedure;
- ★ environmental law;
- ★ export, import, strategic trade and customs laws;
- ★ immigration and border control laws;
- ★ law on emergency preparedness and response;
- ★ economic laws, including taxation and financial matters;
- ★ worker safety and health protection;
- ★ land use planning laws;
- ★ scientific research and development laws (intellectual property);
- ★ intelligence collection and use;
- ★ laws on handling of confidential or classified information;
- ★ laws on liability for damage, including through terrorism or criminal activity;
- ★ laws on transport, particularly transport security; and
- ★ anti-corruption and public integrity laws.

In conducting the assessment, the following issues should be considered:

- ★ Does current law provide that ensuring adequate levels of security is an overriding requirement for conducting nuclear-related activities?
- ★ Does the legal structure contain major gaps, overlaps or inconsistencies in the treatment of activities relating to nuclear security?
- ★ Do key terms used in the legislation have clear and consistent definitions?
- ★ Are institutional responsibilities for implementing nuclear security laws and regulations clear and consistent, avoiding delays, confusion, bureaucratic conflicts and potential for abuse of authority?
- ★ Does the law and regulatory framework comply fully with provisions of the conventions ratified or acceded to by the State, and reflect best practice set forth in relevant guidance documents?

### 3. Assessment of international instruments

---

A third assessment needed early in the process of developing a nuclear security law is a determination of which international legal instruments (both binding and non-binding) are relevant for drafting specific provisions of the law. Most States have adhered to at least some of the international instruments in the nuclear security field. Failure to reflect relevant international legal instruments in national legislation can adversely impact a State's ability to utilise nuclear energy through co-operation and assistance (including mutual legal assistance) by other States, international organisations and the global nuclear industry. It is important that the State's assessment not only considers those instruments to which it has already become a party, but instruments that could be important in enabling it to implement its future program for nuclear development.



## 4. Structure and level of detail of legislation

A threshold issue in drafting nuclear security legislation is whether it should be included in a unified or comprehensive law covering all aspects of nuclear technology in a State, or whether nuclear security should be dealt with separately in a specific law or in broader legislation covering all aspects of national security. As discussed in Volume I of the IAEA Handbook on Nuclear Law, a unified or comprehensive nuclear law can include common elements (such as licensing) that apply to a range of subjects, thereby avoiding repetition or confusing cross-referencing of provisions in different laws.

State practice varies widely on the issue of how detailed legislation needs to be to ensure effective implementation. In some States very detailed (often referred to as “prescriptive”) legislation is drafted. In other States, only the main elements are included, with details left to implementing regulations (sometimes called “subsidiary legislation”) that are adopted by responsible governmental bodies, such as the nuclear regulatory authority. Both approaches have their strengths and weaknesses. What is important is that national legislation clearly assigns essential responsibilities for nuclear security and reflects the rights and obligations of international instruments to which the State is a party.

## 5. Participants in the process of developing legislation

Nuclear security legislation can involve complex technical issues unfamiliar to persons typically responsible for legislative drafting. For this reason, initial preparation of such legislation is often assigned to a body with technical expertise, such as a nuclear regulatory authority or an energy ministry or department. However, nuclear security law involves other dimensions that technical experts may not adequately comprehend, including criminal law matters or organisational responsibilities of various security agencies. For this reason, in developing nuclear security legislation, it is important that the range of expertise needed for effective legislation in the field be engaged at both the early stages and throughout the entire legislative process. The following listing identifies entities most likely to be affected by nuclear security legislation:

- ★ regulated users or licensees;
- ★ the governmental body responsible for nuclear regulation;
- ★ the governmental body responsible for energy policy and development;
- ★ law enforcement agencies (including police);
- ★ border control, customs and immigration agencies;
- ★ the organisation(s) responsible for international trade and strategic trade controls;
- ★ emergency preparedness and response agencies;
- ★ national intelligence agencies;
- ★ other national governmental organisations with related responsibilities (e.g., environment, administration of justice, administrative law, worker protection, transportation);
- ★ scientific bodies (academic institutions, academies of sciences, etc.);
- ★ local and regional governments;
- ★ relevant interest groups (environmental, energy policy, etc.) and industry or other associations;
- ★ community groups and the public;
- ★ international organizations; and
- ★ other States (particularly those in the vicinity of nuclear facilities).

---

## 6. Initial drafting

---

As mentioned above, all relevant stakeholders should be involved in early preparation of a draft nuclear security law. Both technical and legal specialists need to participate in initial drafting. At this stage, drafting should focus on basic policy issues, rather than on the details of implementation that are better left to regulations or subsidiary instruments (decrees, memoranda of understanding, etc.). The drafters should identify any inconsistencies or ambiguities needing further drafting (particularly regarding relationships with other national laws identified in the assessment described earlier). After an initial draft has been prepared a broader range of stakeholders should have an opportunity to provide comments.

---

## 7. Legislative consideration; adoption and promulgation; oversight

---

After an initial draft has been prepared and subject to any revisions based on stakeholder comment, the draft law will be submitted to the national legislative body under normal State practice. It is important to ensure that expertise in nuclear technology and security are available to legislators and legislative assistants in further development of the law. After approval by the legislative body, the State's procedure for formal adoption will be followed, typically involving action by the national executive authority. Also, normal State practice will be followed in publishing the law so that all relevant stakeholders have adequate notice of new legal requirements and regulatory arrangements, including any time interval for entry into force of the new law's requirements.

A final matter that should be considered regarding any new law is how to ensure that its provisions are being effectively applied and whether any adjustments or revisions are necessary to address any problems in case practical difficulties arise in implementation. The law should identify responsible governmental bodies for conducting such "oversight". Procedures for review by the legislative body may also be appropriate; for example, through hearings on an annual or other periodic basis.

---

## 8. Dispute resolution

---

With many interests involved in most nuclear activities, disputes over interpretation and application of legislation can arise between relevant stakeholders. A clear process for addressing disputes should be included in nuclear security legislation and made public. The process should include internal procedures to be used by responsible organisations (primarily the regulatory body) and among different government agencies. Some States include such measures in their general administrative laws, rather than in specific nuclear legislation. With regard to the handling of appeals of adverse decisions, the law should clarify how they are to be handled and how continuing activities are to be managed (or suspended) pending a final decision.